

Serial No.: 10/822,231
Filing Date: March 26, 2004

REMARKS

Entry of this amendment is respectfully requested. The amendments are made in adherence with 37 C.F.R. § 1.821-1.825. This amendment is accompanied by a floppy disc containing the above named sequences, SEQUENCE ID NUMBERS 1-308, in computer readable form, and a paper copy of the sequence information.

The information contained in the computer readable disc is identical to that of the paper copy in adherence with 37 C.F.R. § 1.821(f). This amendment contains no new matter in adherence with 37 C.F.R. § 1.821(g). Applicant submits that this amendment, the accompanying computer readable sequence listing, and the paper copy thereof serve to place this application in a condition of adherence to the rules 37 C.F.R. § 1.821-1.825.

In addition, the present amendment is being submitted to correct typographical errors in the drawings, specifically in regards to the labeling of the figures so that each figure is numbered consecutively in accordance to 37 C.F.R. § 1.84(u)(1). Replacement Sheets 1/32-32/32 incorporate corrections, and Annotated Sheets Showing Changes marked in red are attached for the Examiner's convenience. Applicants submit that this amendment is not new matter and request its entry.

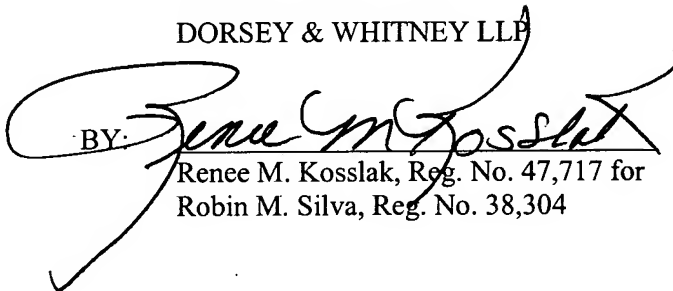
Please direct any calls in connection with this application to the undersigned at (415) 781-1989.

Respectfully submitted,

DORSEY & WHITNEY LLP

Dated: 11/8/04
Customer Number: 32940
Dorsey & Whitney LLP
Intellectual Property Department
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BY:



Renee M. Kossak, Reg. No. 47,717 for
Robin M. Silva, Reg. No. 38,304

Amendments to the Figures:

The attached sheets of replacement formal drawings include changes to Figures 1-38. Replacement Sheet 1/32, which includes Figure 1, replaces the original Figure 1 page. Replacement Sheet 2/32, which includes Figure 2, replaces the original Figure 2 page. Replacement Sheet 3/32, which includes Figure 3, replaces the original Figure 3 page. Replacement Sheet 4/37, which includes Figure 4, replaces the original Figure 4 page. Replacement Sheet 5/32, which includes Figure 5, replaces the original Figure 5 page. Replacement Sheet 6/32, which includes Figures 6 and 7, replaces the original Figures 6 and 7 pages. Replacement Sheet 7/32, which includes Figures 8 and 9, replaces the original Figures 8 and 9 pages. Replacement Sheet 8/32, which includes Figure 10, replaces the original Figure 10 page. Replacement Sheet 9/32, which includes Figures 11 and 12, replaces the original Figures 11 and 12 pages. Replacement Sheet 10/32, which includes Figures 13A and 13B, replaces the original Figures 13A and 13B pages. Replacement Sheet 11/32, which includes Figures 14A and 14B, replaces the original Figures 14A and 14B pages. Replacement Sheet 12/32, which includes Figures 15A and 15B, replaces the original Figures 15A and 15B pages. Replacement Sheet 13/32, which includes Figures 16A and 16B, replaces the original Figures 16A and 16B pages. Replacement Sheet 14/32, which includes Figures 17 and 18, replaces the original Figures 17 and 18 pages. Replacement Sheet 15/32, which includes Figures 19A and 19B, replaces the original Figures 19A and 19B pages. Replacement Sheet 16/32, which includes Figures 20 and 21, replaces the original Figures 20 and 21 pages. Replacement Sheet 17/32, which includes Figures 22A and 22B, replaces the original Figures 22A and 22B pages. Replacement Sheet 18/32, which includes Figures 23A and 23B, replaces the original Figures 23A and 23B pages. Replacement Sheet 19/32, which includes Figures 23C and 23D, replaces the original Figures 23C and 23D pages. Replacement Sheet 20/32, which includes Figures 24A and 24B, replaces the original Figures 24A and 24B pages. Replacement Sheet 21/32, which includes Figures 25A and 25B, replaces the original Figures 25A and 25B pages. Replacement Sheet 22/32, which includes Figures 25C and 26A, replaces the original Figures 25C and 26A pages. Replacement Sheet 23/32, which includes Figures 26B and 26C, replaces the original Figures 26B and 26C pages. Replacement Sheet 24/32, which includes Figures 27A and 27B, replaces the original Figures 27A and 27B pages. Replacement Sheet 25/32, which includes Figures 28 and 29, replaces the original Figures 28 and 29 pages. Replacement Sheet 26/32, which includes Figures 30 and 31A, replaces the original Figures 30 and 31A pages. Replacement Sheet 27/32, which includes Figures 31B and 31C, replaces the original Figures 31B and 31C pages. Replacement Sheet 28/32, which includes Figures 32 and 33, replaces the original Figures 32 and 33 pages. Replacement Sheet 29/32, which includes Figures 34A and 34B, replaces the original Figures 34A

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and 34B pages. Replacement Sheet 30/32, which includes Figures 35 and 36, replaces the original Figures 35 and 36 pages. Replacement Sheet 31/32, which includes Figures 37A and 37B, replaces the original Figures 37A and 37B pages. Replacement Sheet 32/32, which includes Figures 38A, 38B and 38C replaces the original Figures 38A, 38B and 38C pages.

1/32

Figure 1

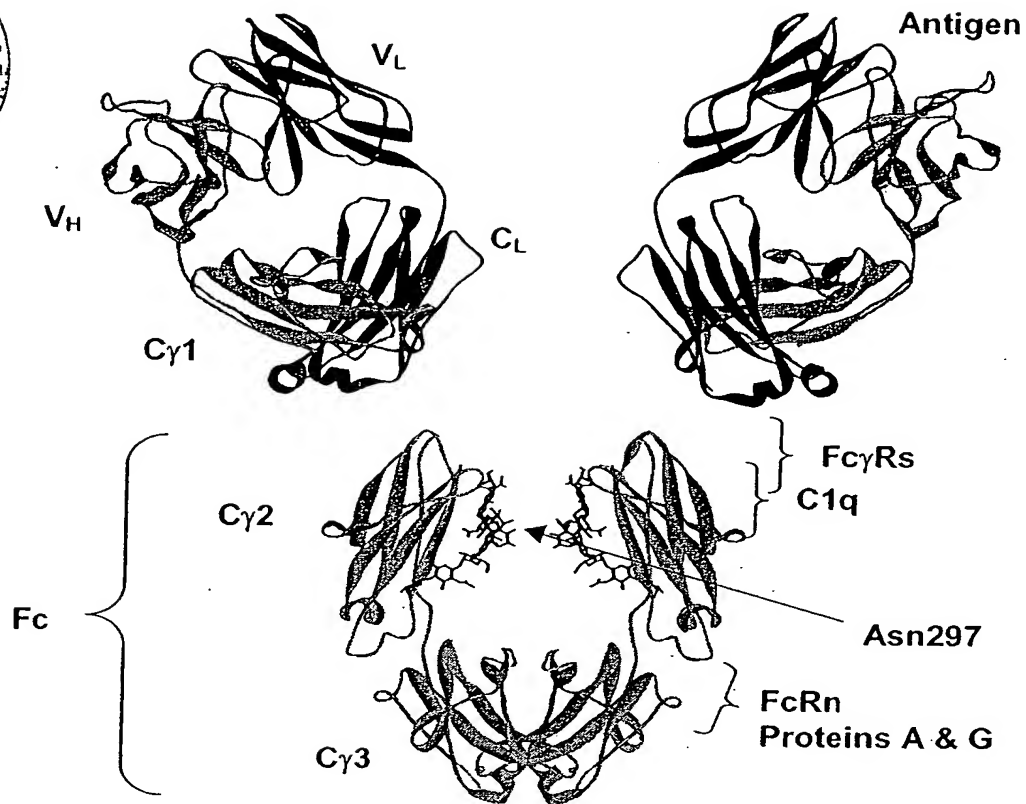


FIG. 1

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Figure-3

SEQ ID NO: 1

VH1->

1 10 20 30 40 50 60
123456789012345678901234567890123456789012345678901234567890
QVQLQESGPGLVPRPSQTLSTCTVSGFTFTDFYMNWVRQPPGRGLEWIGFIRDKAKGYTT

70 80 90 100 110 120
123456789012345678901234567890123456789012345678901234567890
EYNPSVKGRVTMLVDTSKNQFSLRLSSVTAADTAVYYCAREGHTAAPFDYWGQGSGLVTVS

Cy1->

130 140 150 160 170 180
123456789012345678901234567890123456789012345678901234567890
SASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQS

HINGE->

190 200 210 220 230 240
123456789012345678901234567890123456789012345678901234567890
SGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDKTHTCPPCPAPELLG
1234567890123456
KABAT 22 23

Cy2->

250 260 270 280 290 300
123456789012345678901234567890123456789012345678901234567890
GPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQY
789012345678901234567890123456789012345678901234567890123456
240 250 260 270 280 290

?Cy3?->

310 320 330 340 350 360
123456789012345678901234567890123456789012345678901234567890
NSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRD
789012345678901234567890123456789012345678901234567890123456
300 310 320 330 340 350

370 380 390 400 410 420
123456789012345678901234567890123456789012345678901234567890
ELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSR
789012345678901234567890123456789012345678901234567890123456
360 370 380 390 400 410

430 440 450
1234567890123456789012345678901
WQQGNVFSCSVMHEALHNHYTQKSLSLSPGK
7890123456789012345678901234567
420 430 440

Fig. 3

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Figure 2

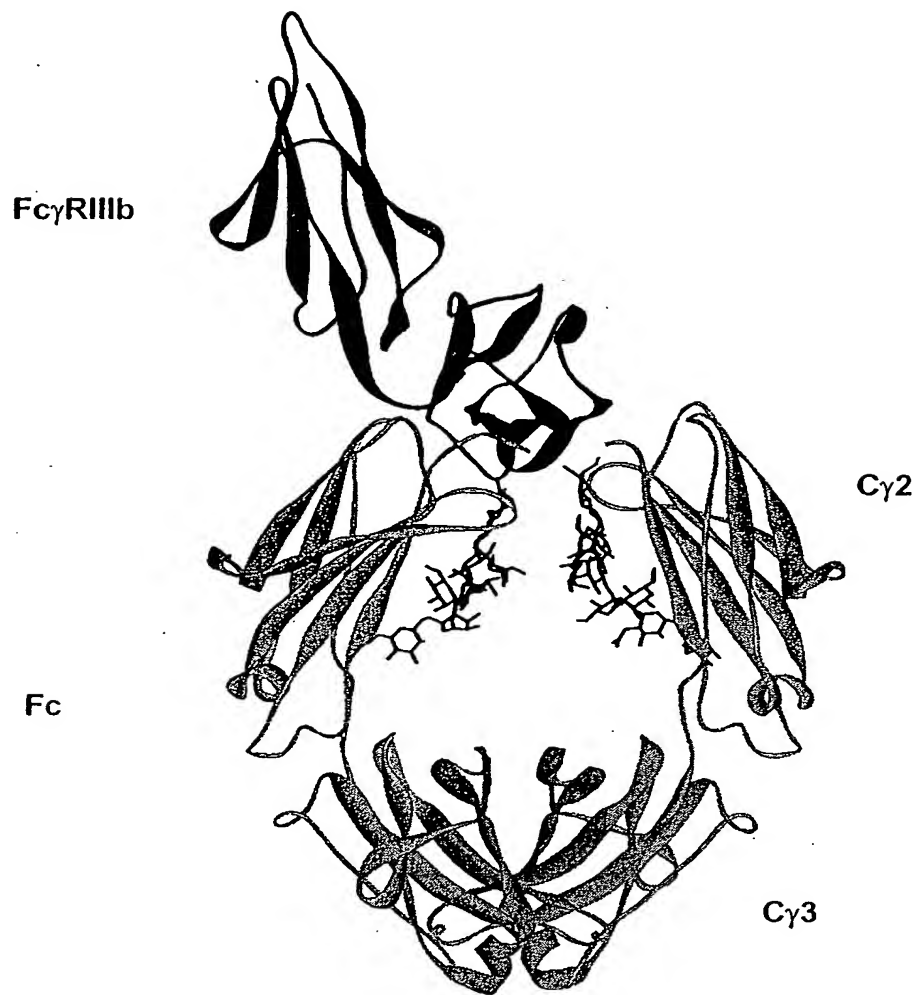


FIG. 2

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~~Figure 4~~

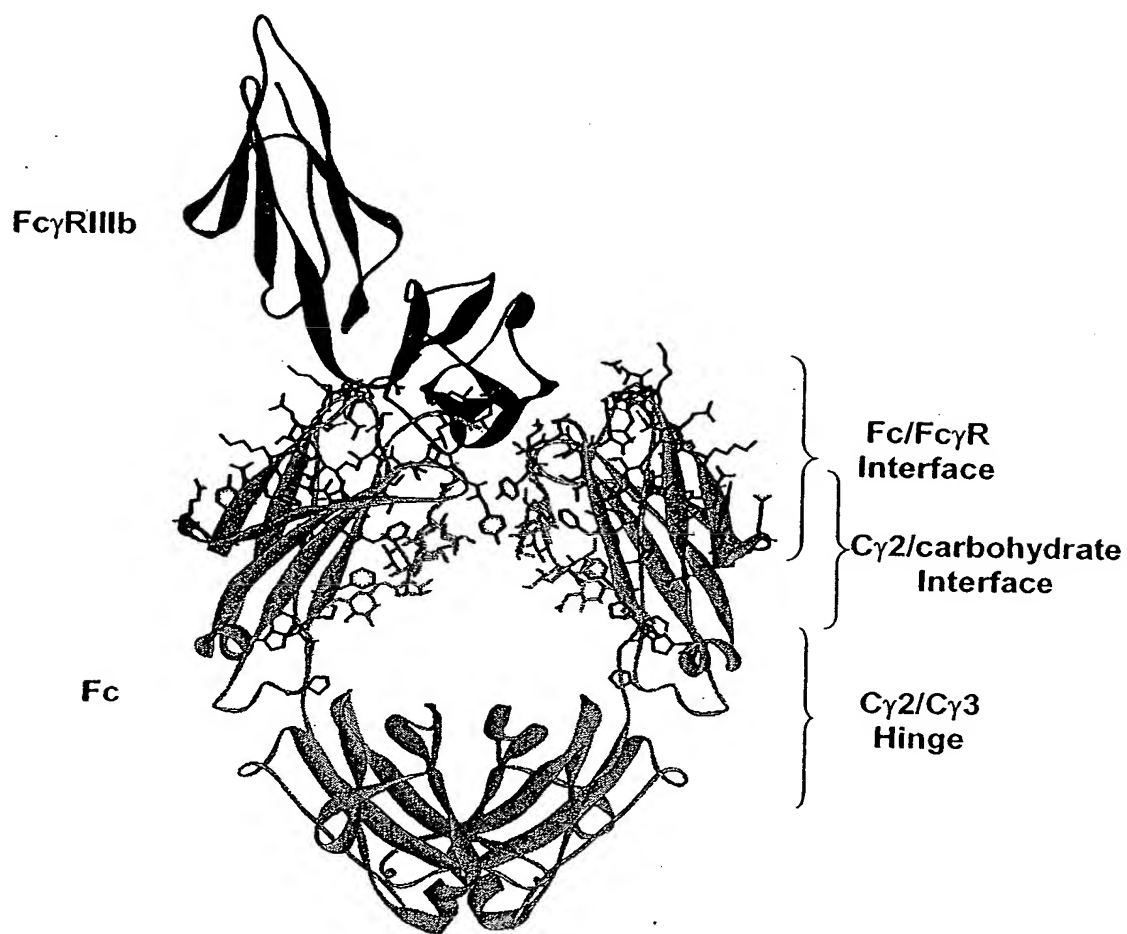


FIG. - 4

5/32
~~Figure 5~~

SEQ ID NO: 2

22 23 24 25 26 27 28
123456789012345678901234567890123456789012345678901234567890
DKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVD

 29 30 31 32 33 34
123456789012345678901234567890123456789012345678901234567890
GVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAK

 35 36 37 38 39 40
123456789012345678901234567890123456789012345678901234567890
GQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDS

 41 42 43 44
12345678901234567890123456789012345678901234567
DGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

FIG. 5

6/32
~~Figure 6~~

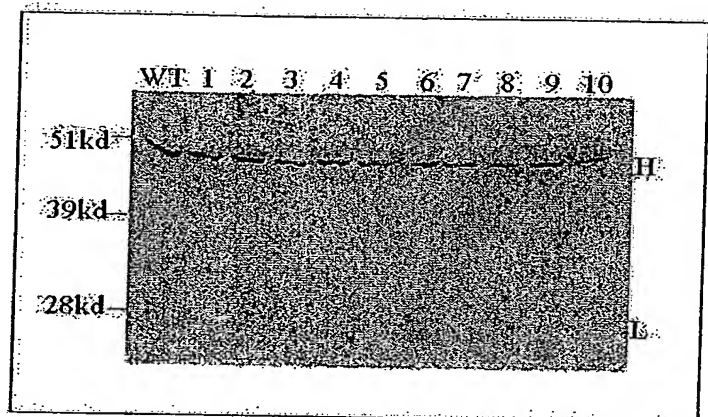


FIG. 6

Figure 7

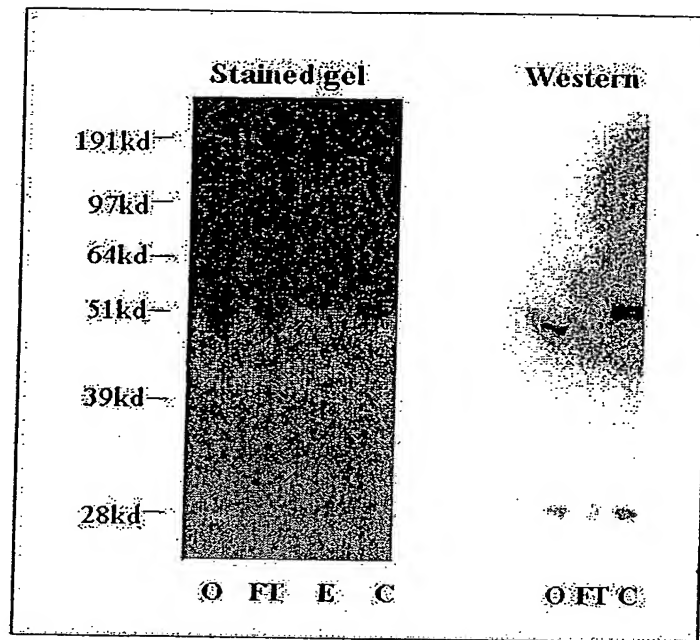


FIG. 7

Appears on bottom page of replacement page 6/32

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Figure-8

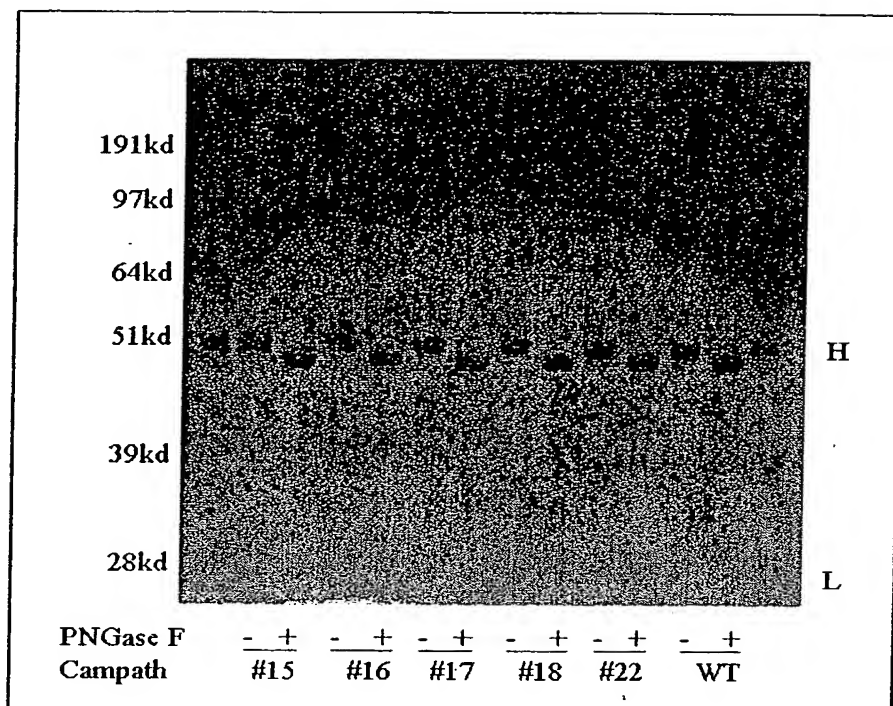


FIG.-8

~~Figure 9~~

Fig. 9

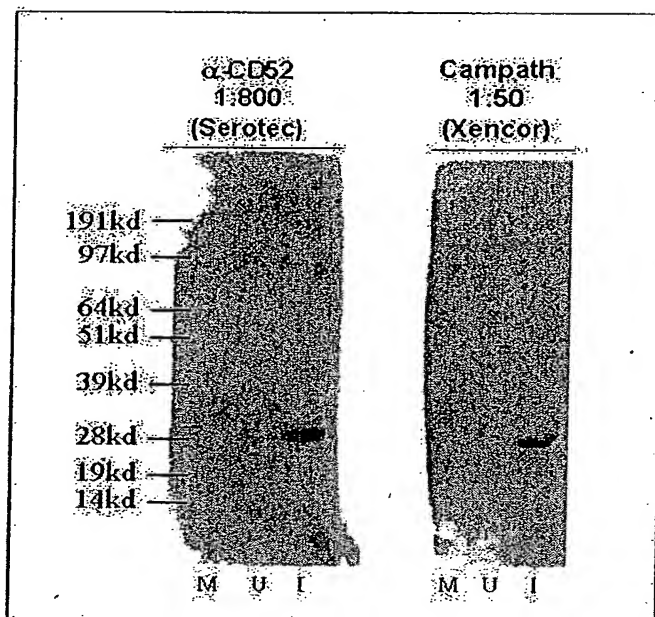


Figure 9 is on bottom page of Replacement
page 7/32.

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Figure 10

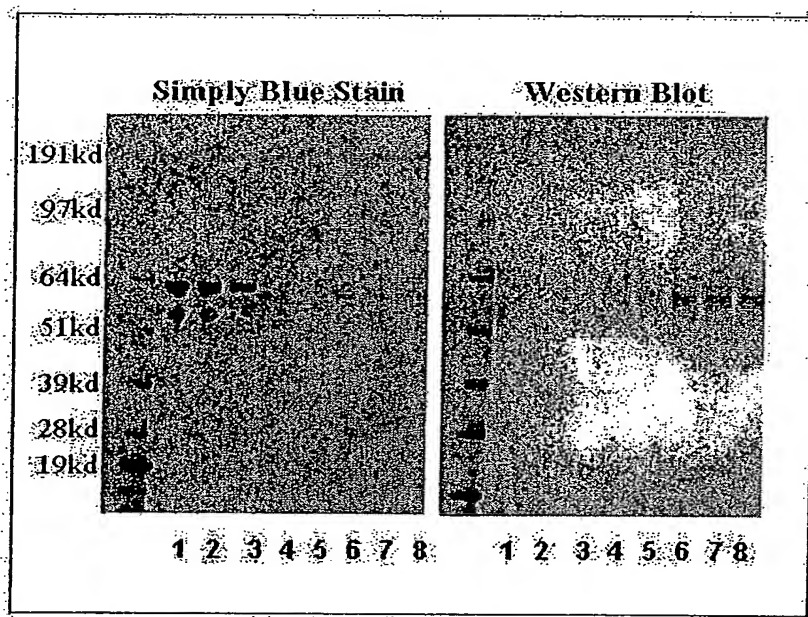
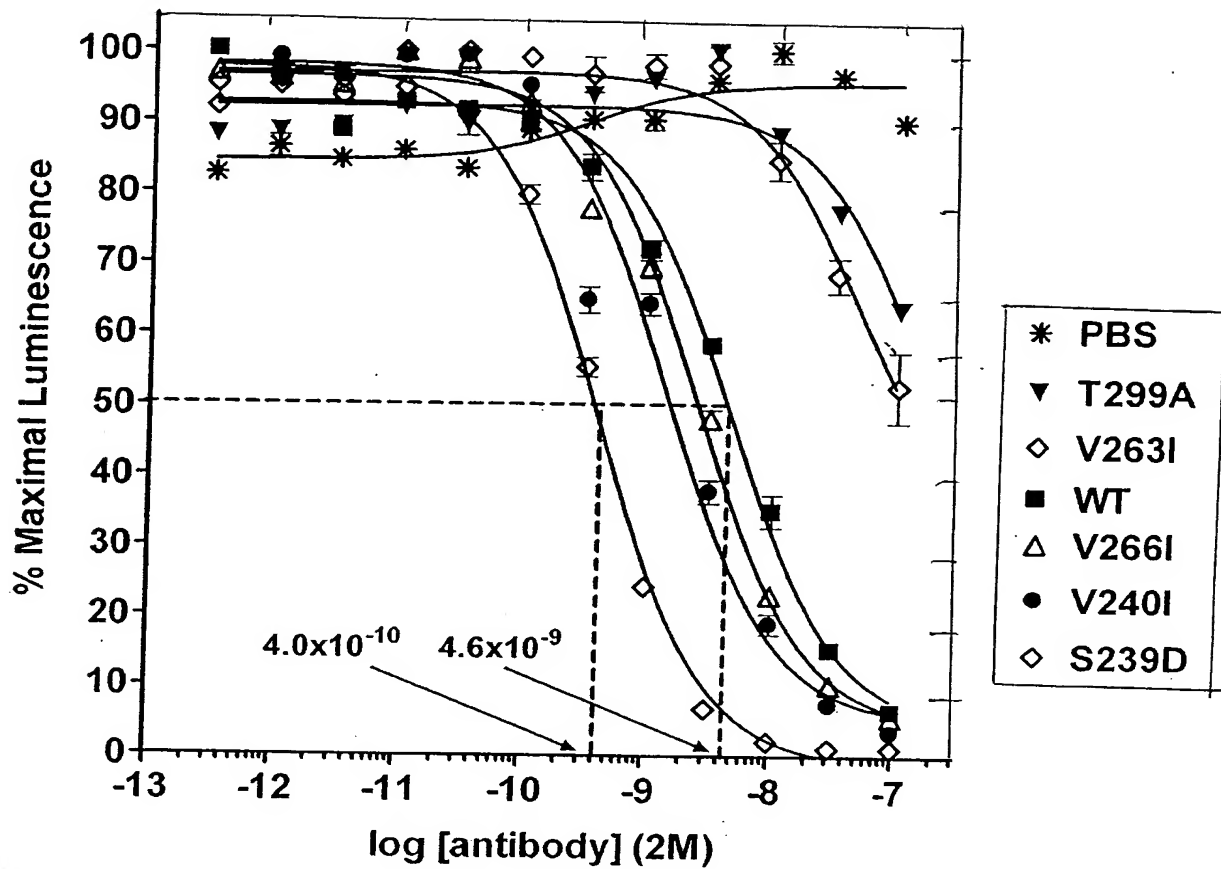


FIG. 10

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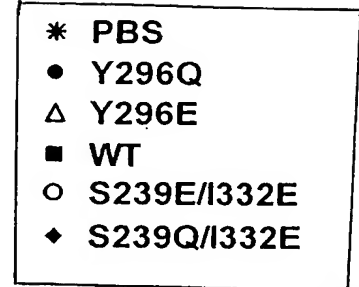
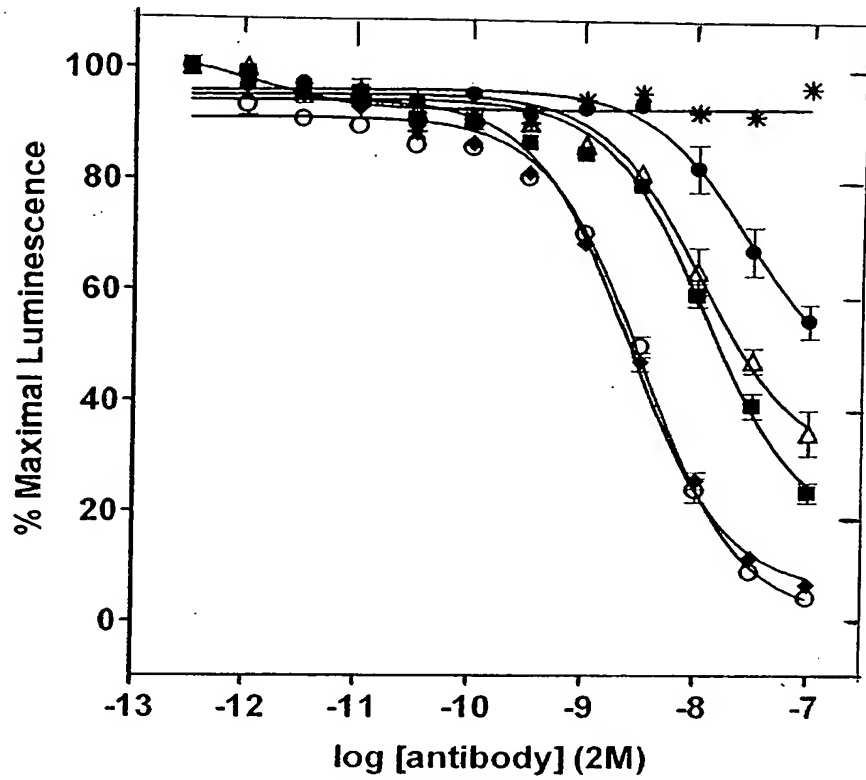
Figure 11



legend.
appears
in graph

FIG. 11

Figure 12

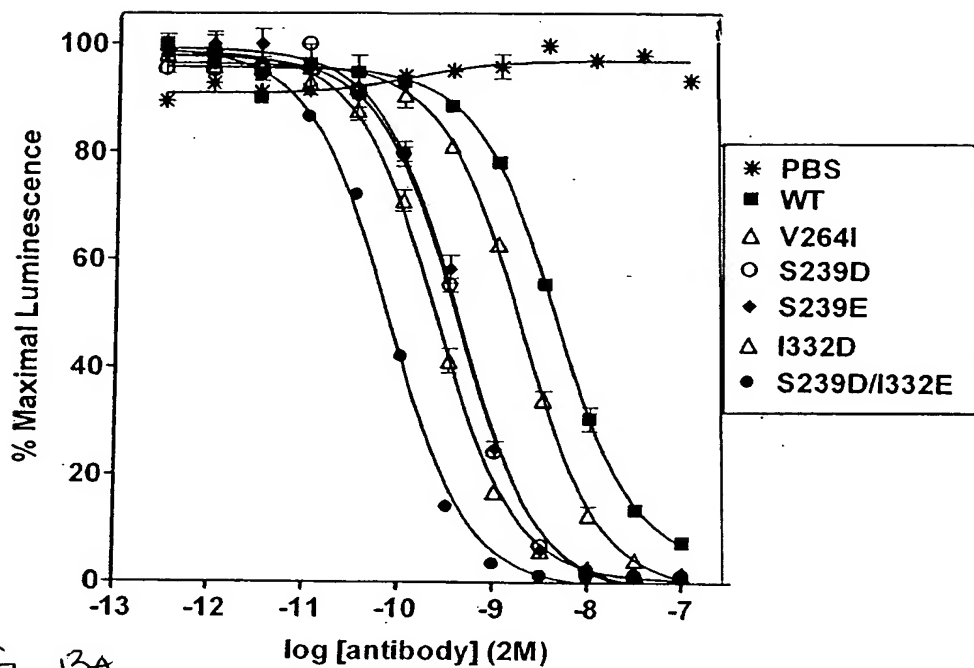


legend appears in
graph

Fig. 12

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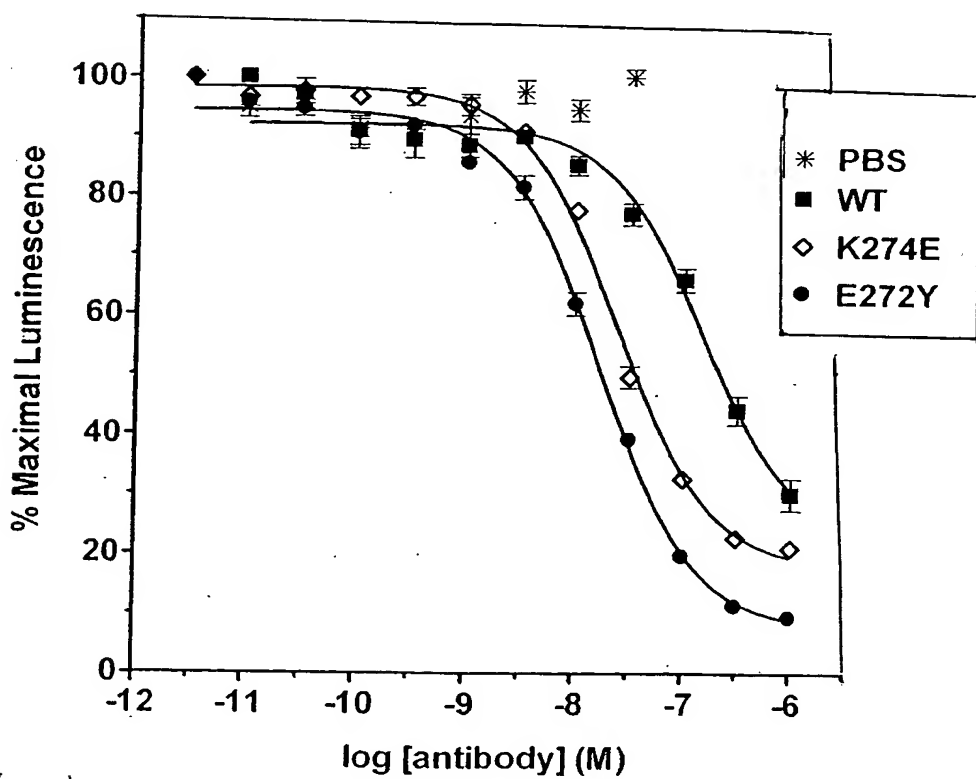
Figure 13a



legend
appears inside
graph

FIG. 13A

Figure 13b

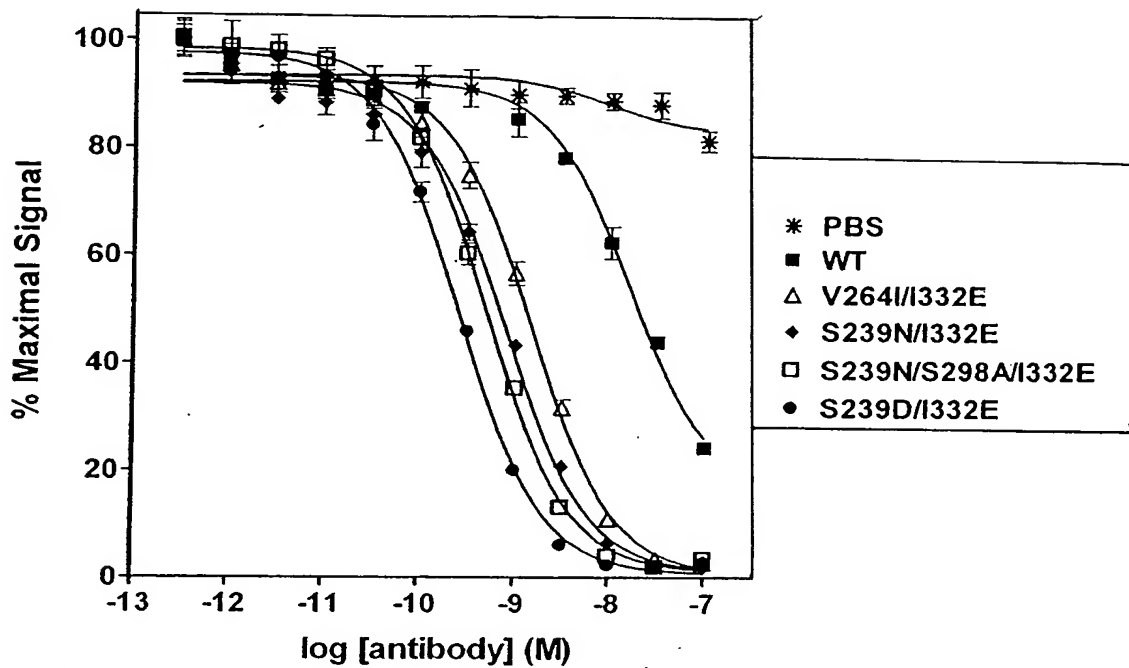


legend appears
inside graph

FIG. 13B

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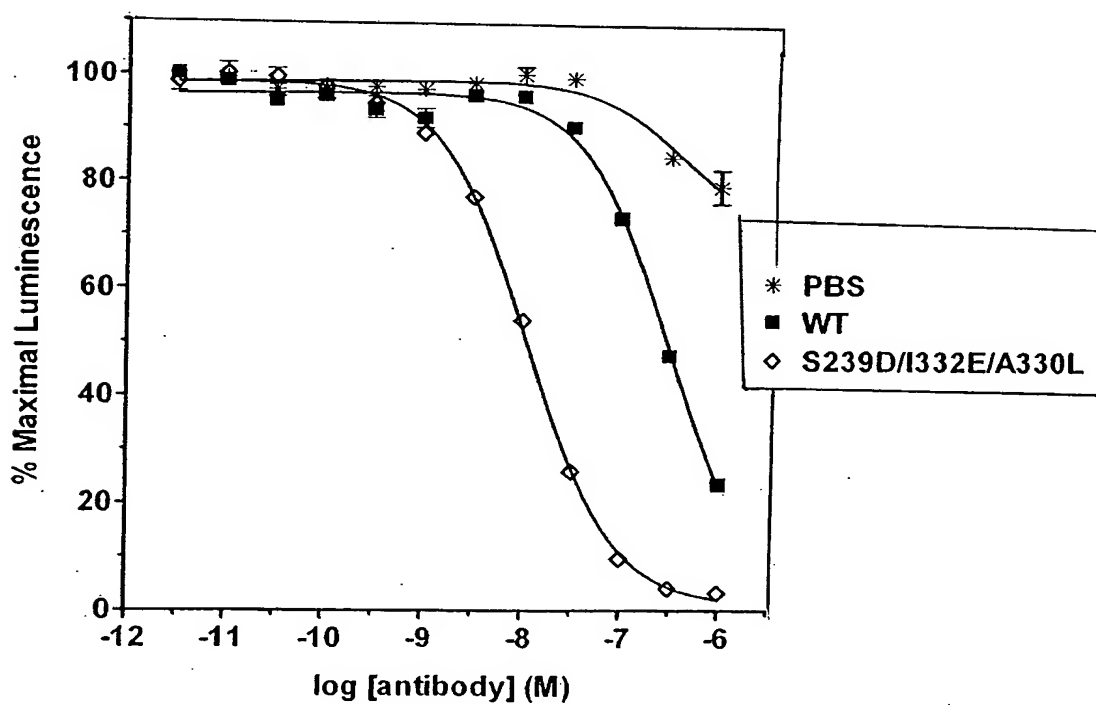
Figure 14a



legend
appears inside
graph

FIG. 14A

Figure 14b

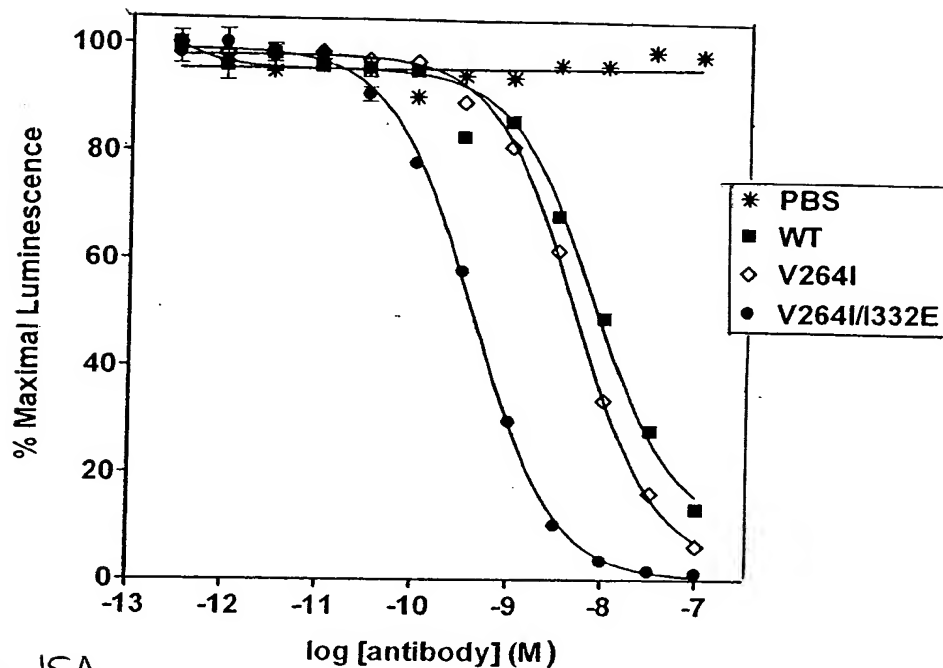


legend appears
inside graph

FIG. 14B

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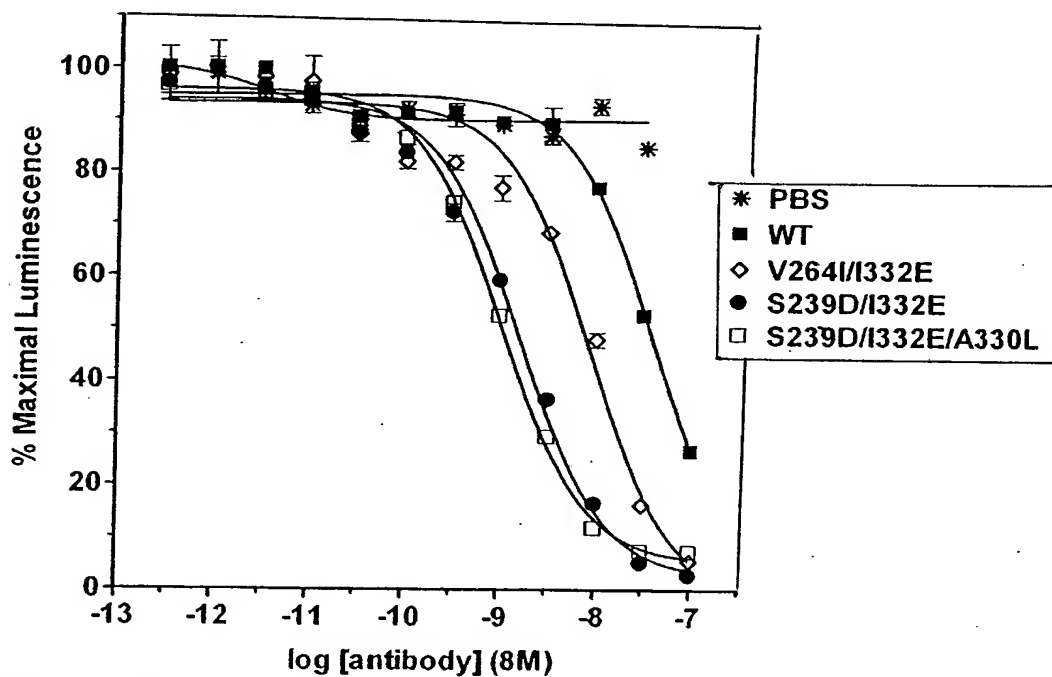
Figure 15a



legend appears
inside graph

FIG. 15A

Figure 15b

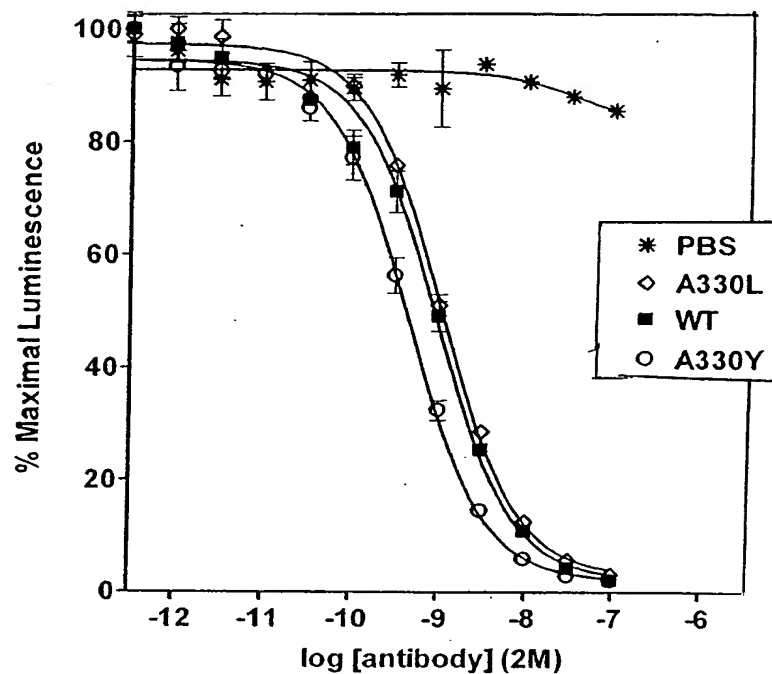


legend
appears inside
graph

FIG. 15B

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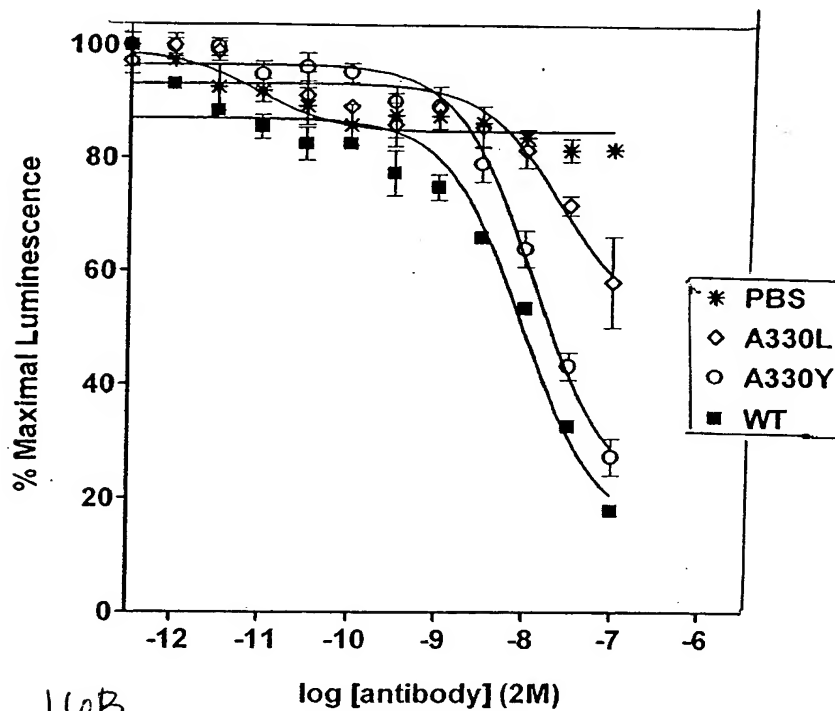
Figure 16a



legend appear in
inside corner of
graph

Fig. 16A

Figure 16b



legend appears
in inside corner
of graph

Fig. 16B

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Figure 17

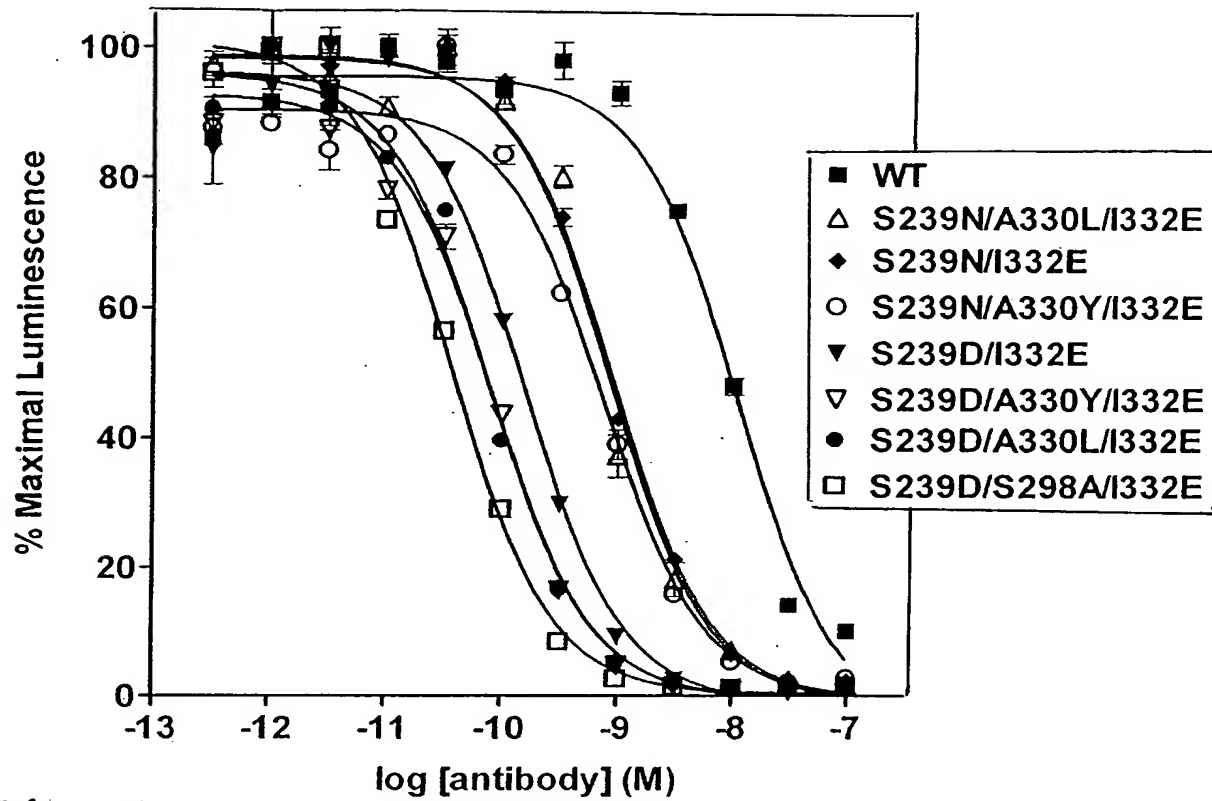


FIG. 17

Figure 18

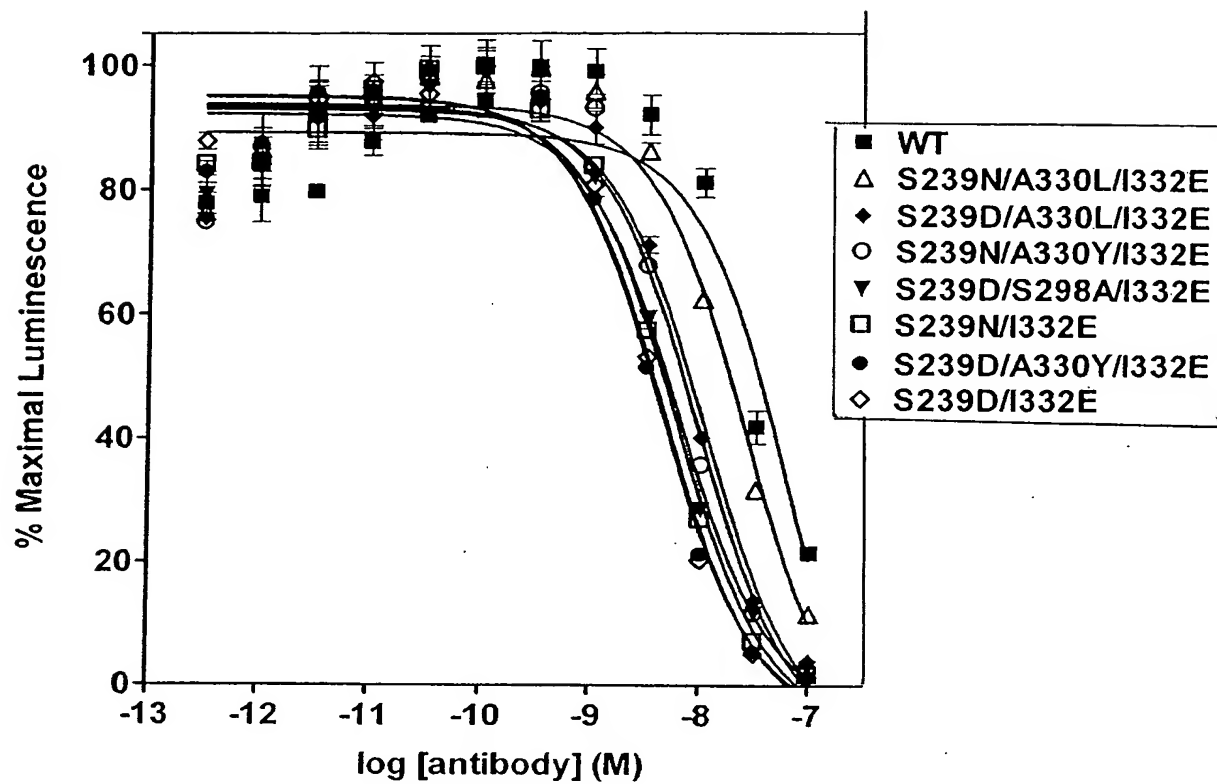
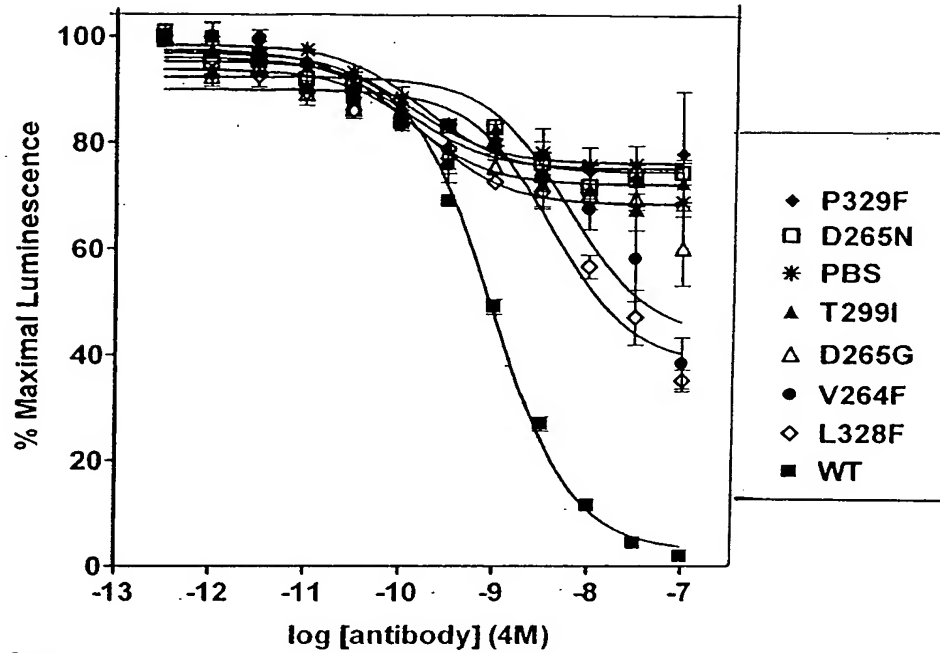


FIG. 18

Figure 18 appears on bottom page of Replacement
page 14/32.

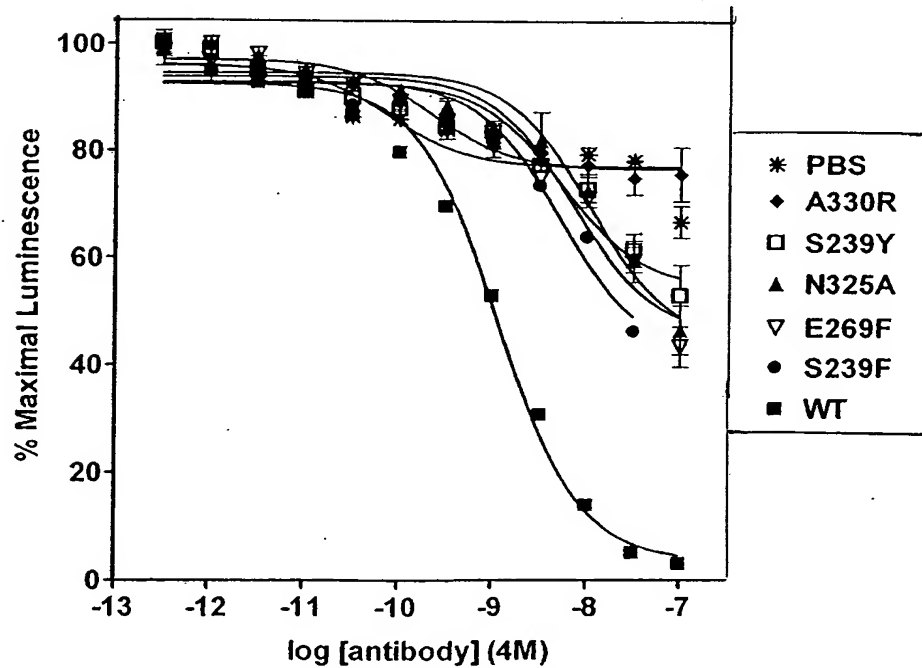
15/32
Figure 19a



legend
appears
inside of
graph

FIG. 19A

Figure 19b



legend appears
inside of
graph

FIG. 19B

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Figure 20

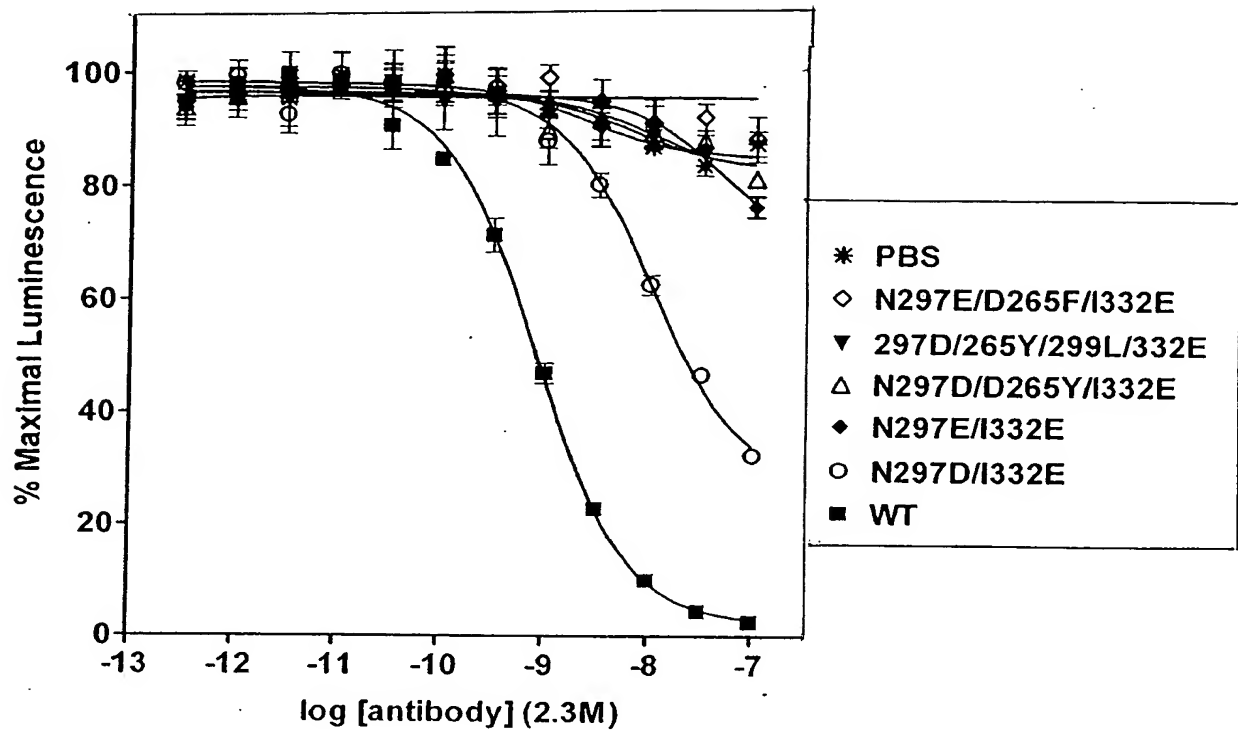
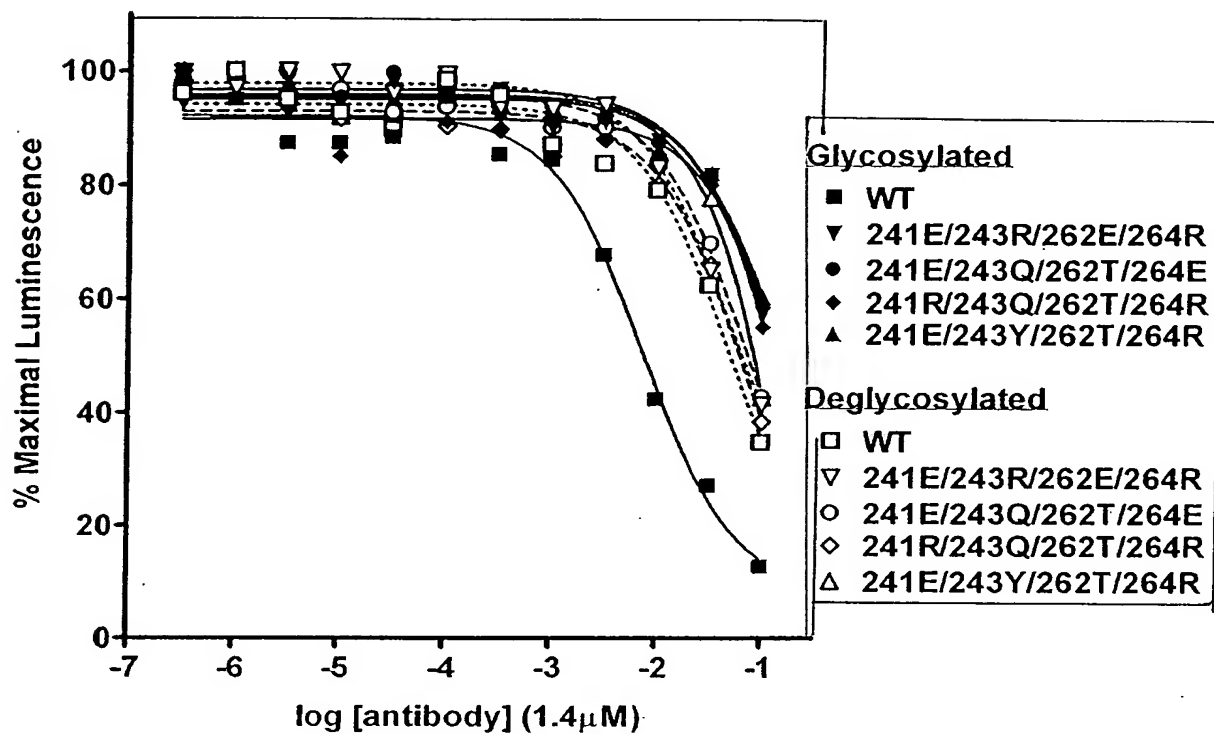


FIG. 20

Figure-21



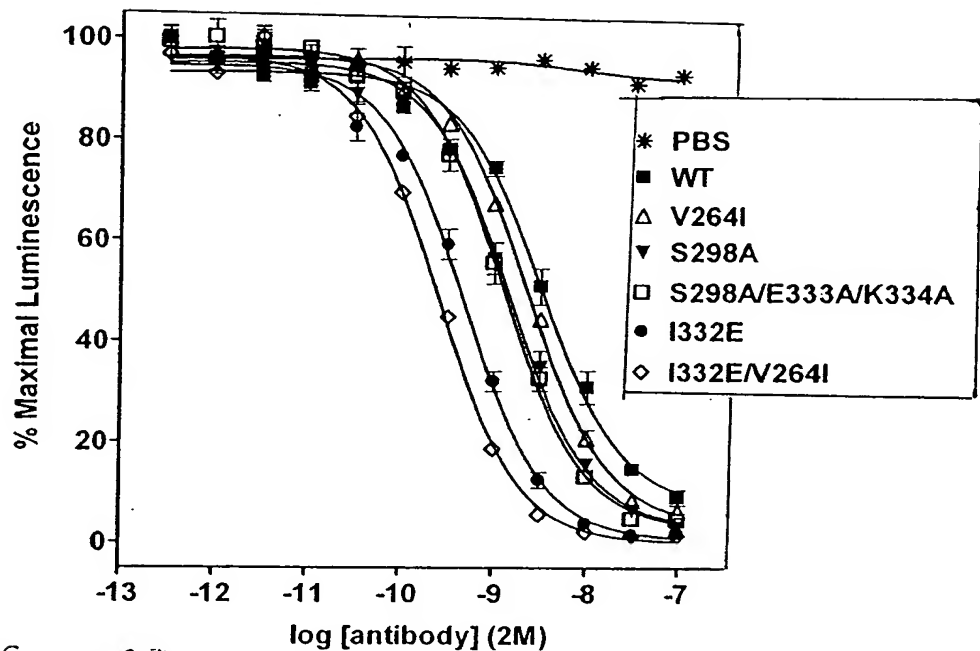
legend
appears
inside of
graph

FIG. 21

Figure 21 appears on bottom page of Replacement
Page 14/32.

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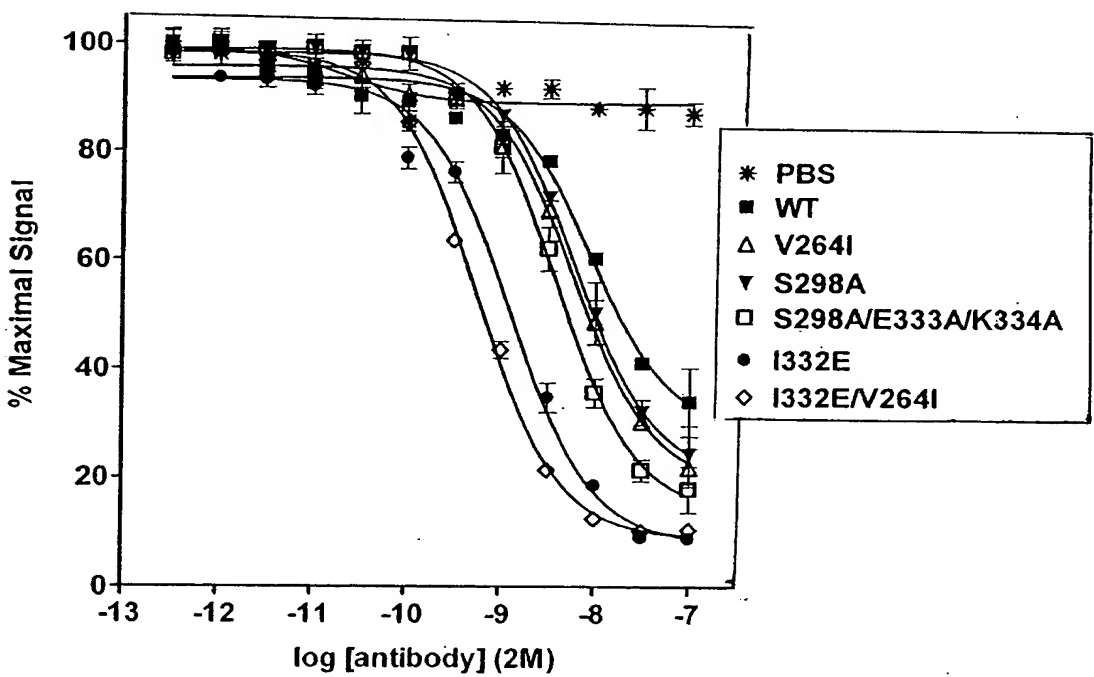
Figure 22a



legend appears
inside graph

FIG. 22A

Figure 22b



legend appears
inside graph

FIG. 22B

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Figure 23a

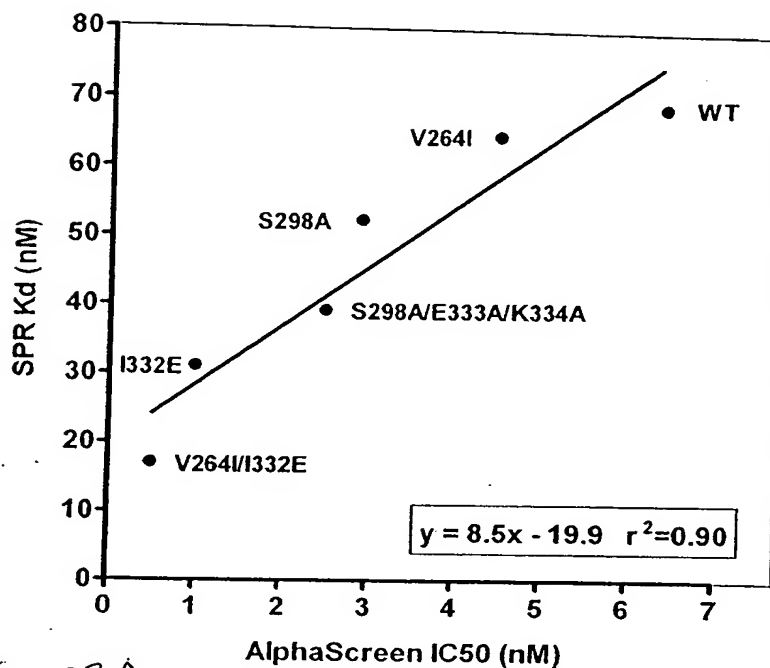


FIG. 23A

Figure 23b

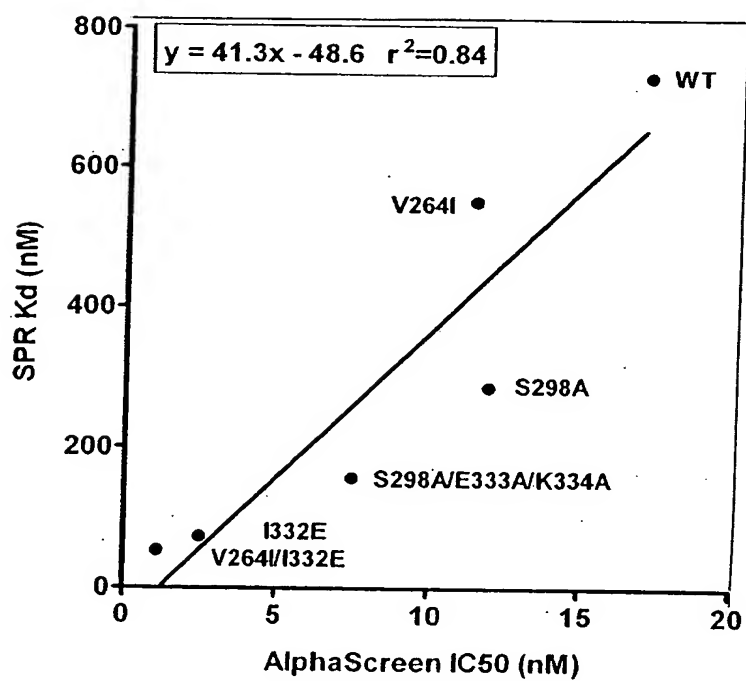


FIG. 23B

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Figure 23c

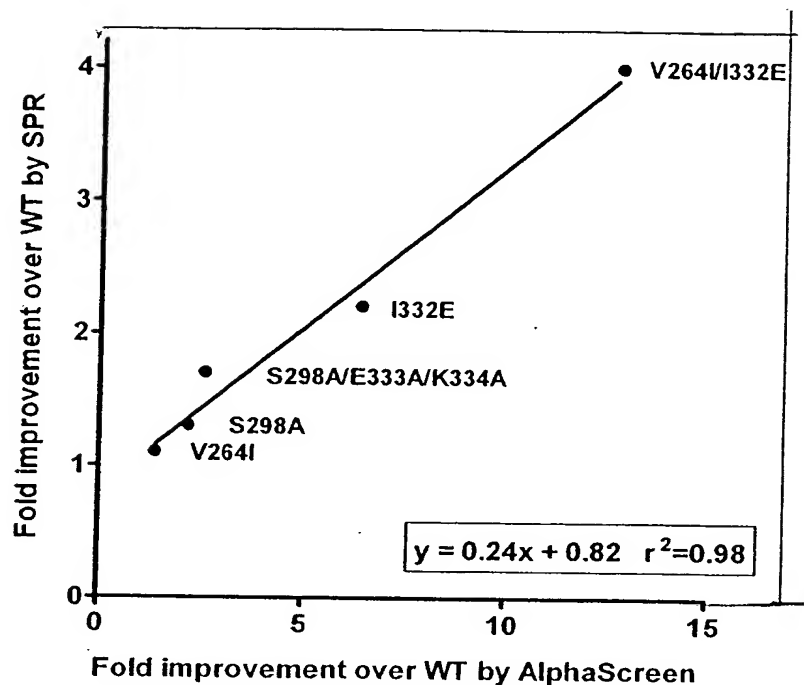


FIG. 23C

Figure 23d

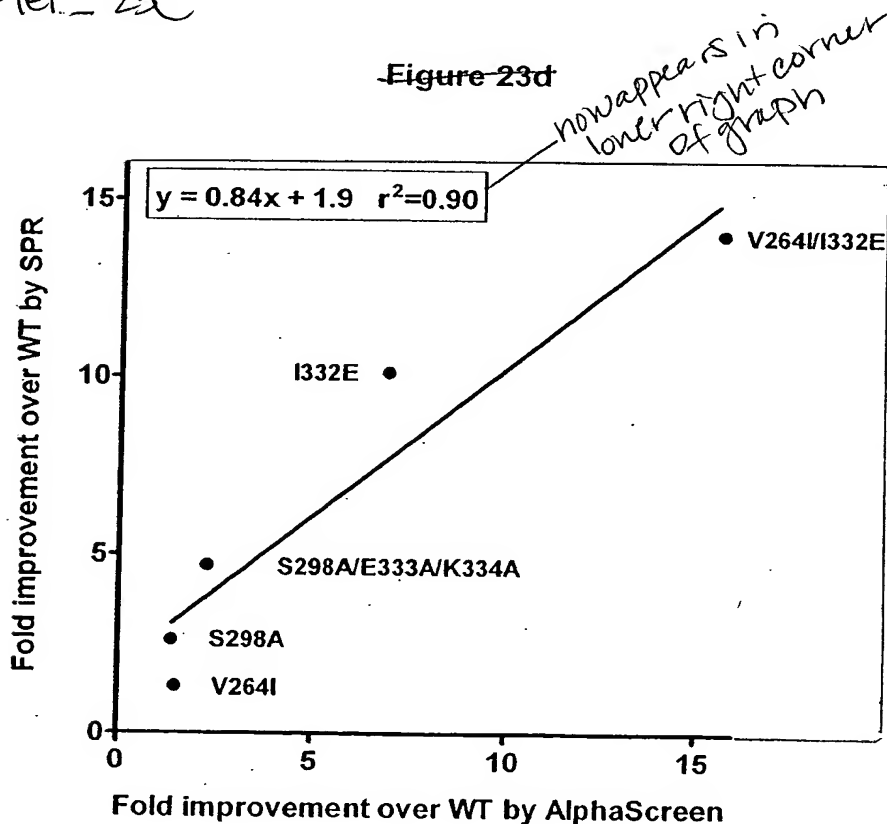


FIG. 23D

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Figure-24a

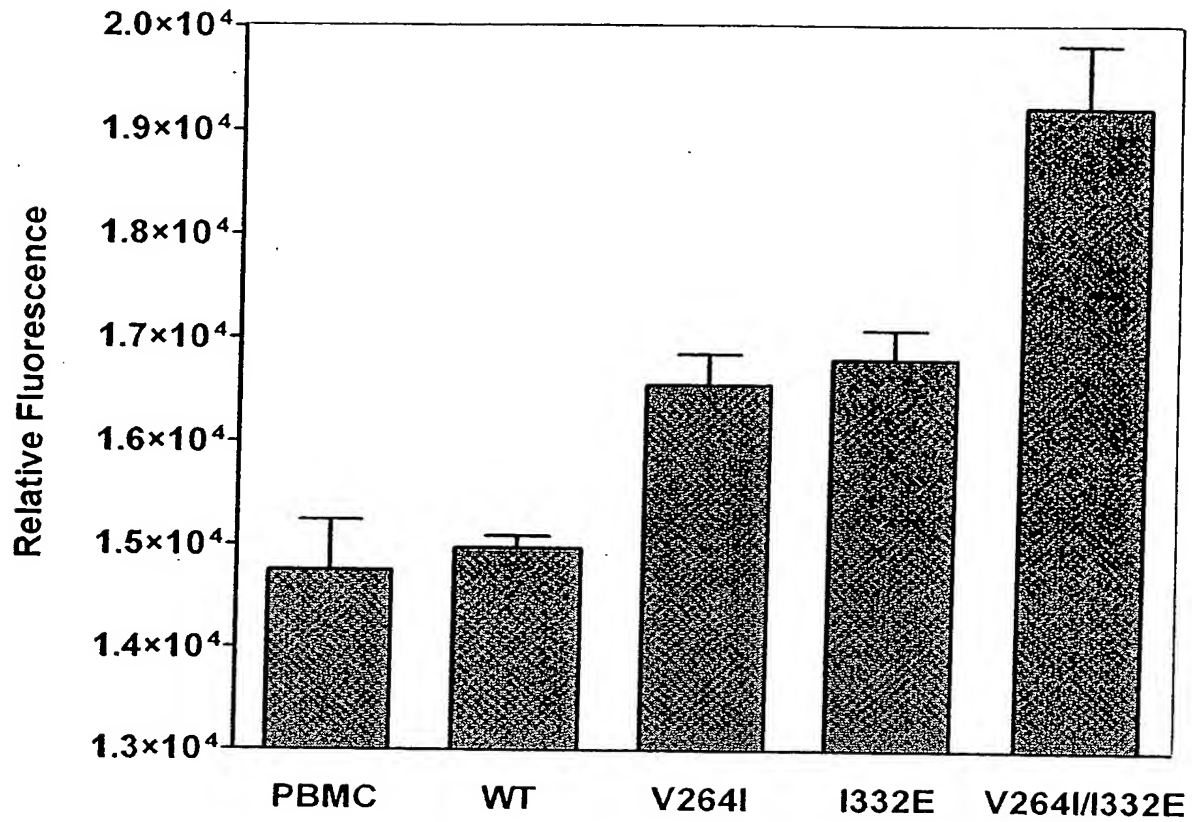


FIG. - 24A

Figure 24b

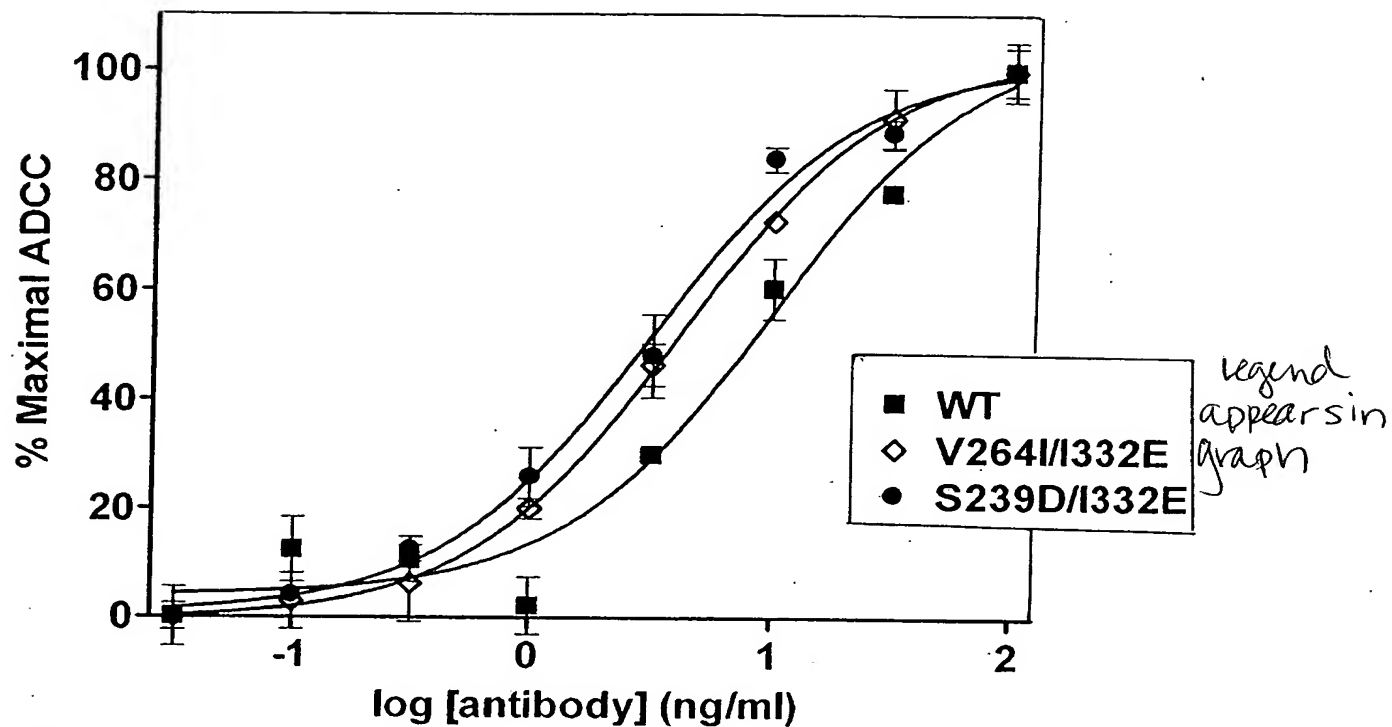


FIG. 24B

FIGURE 24B IS ON BOTTOM PAGE OF Replacement page 20/32.

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Figure 25a

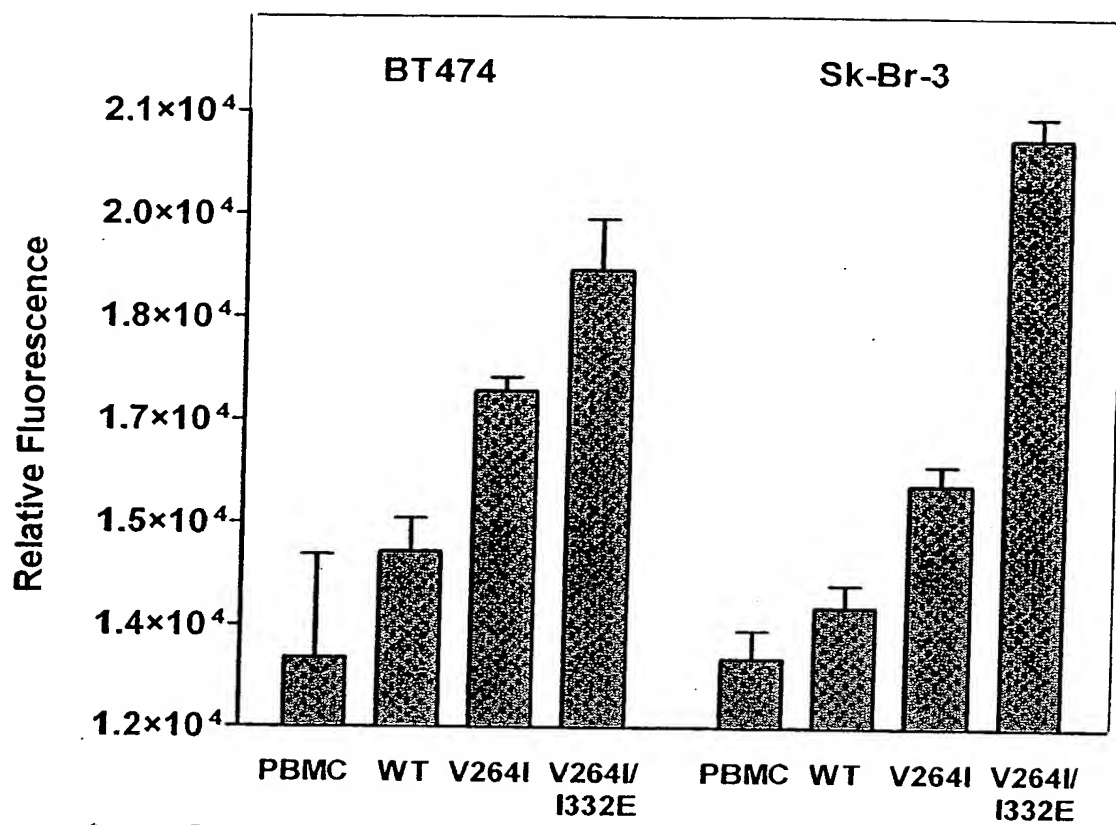


FIG. 25A

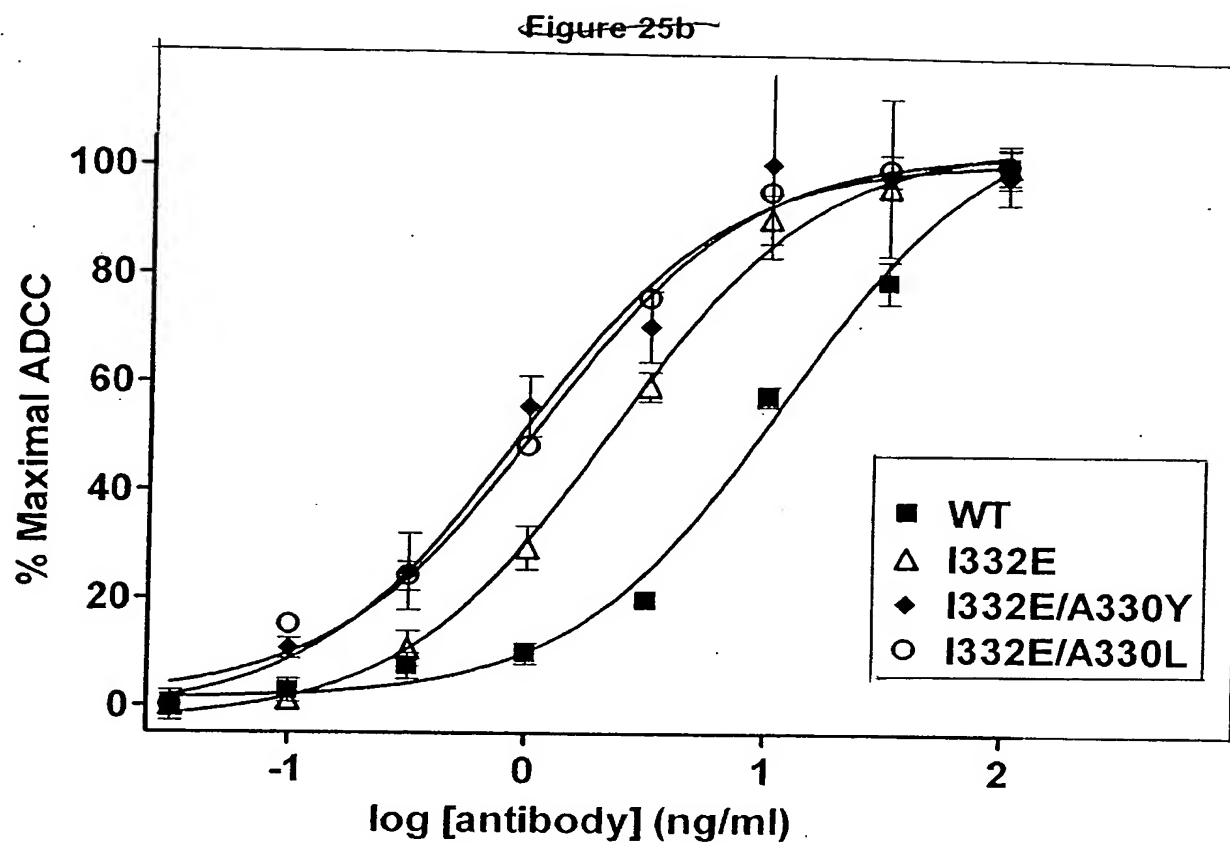


FIG. 25B

Figure 25B appears on bottom page of Replacement
page 21/32.

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Figure 25c

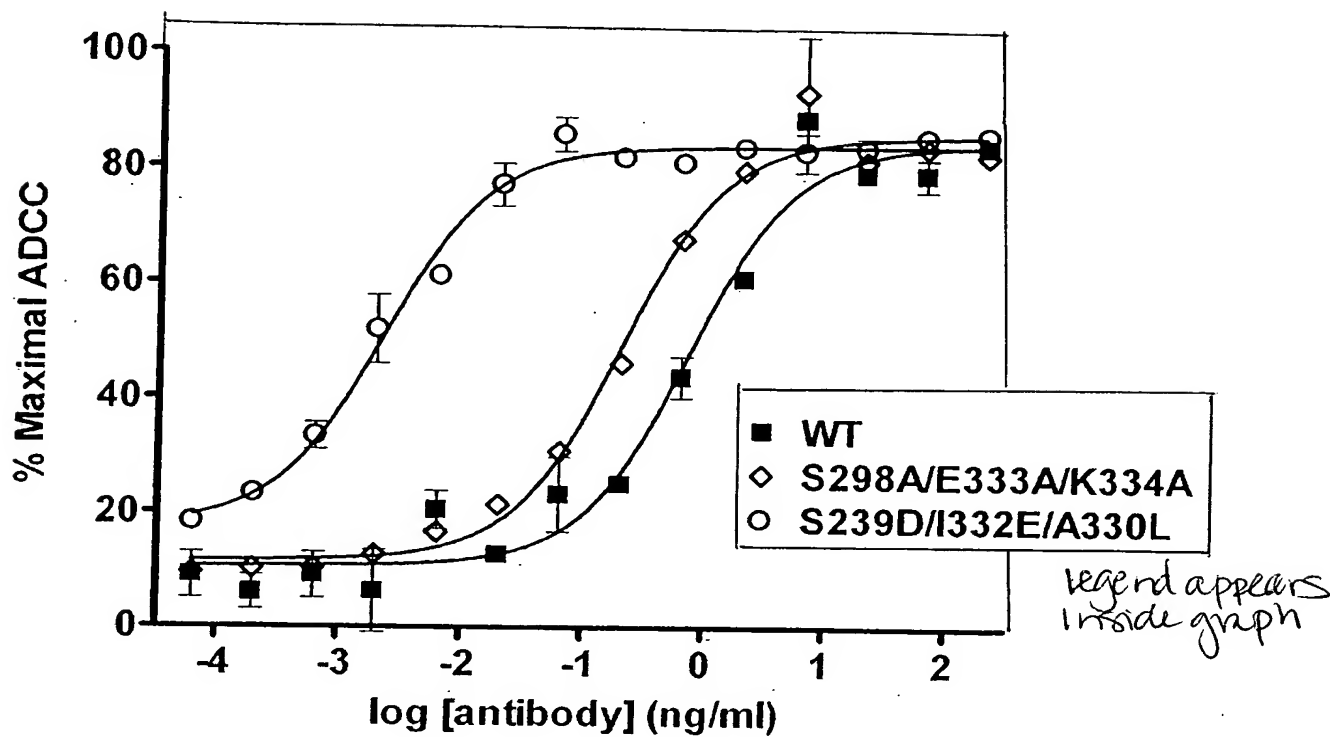


FIG. 25c

~~Figure 26a~~

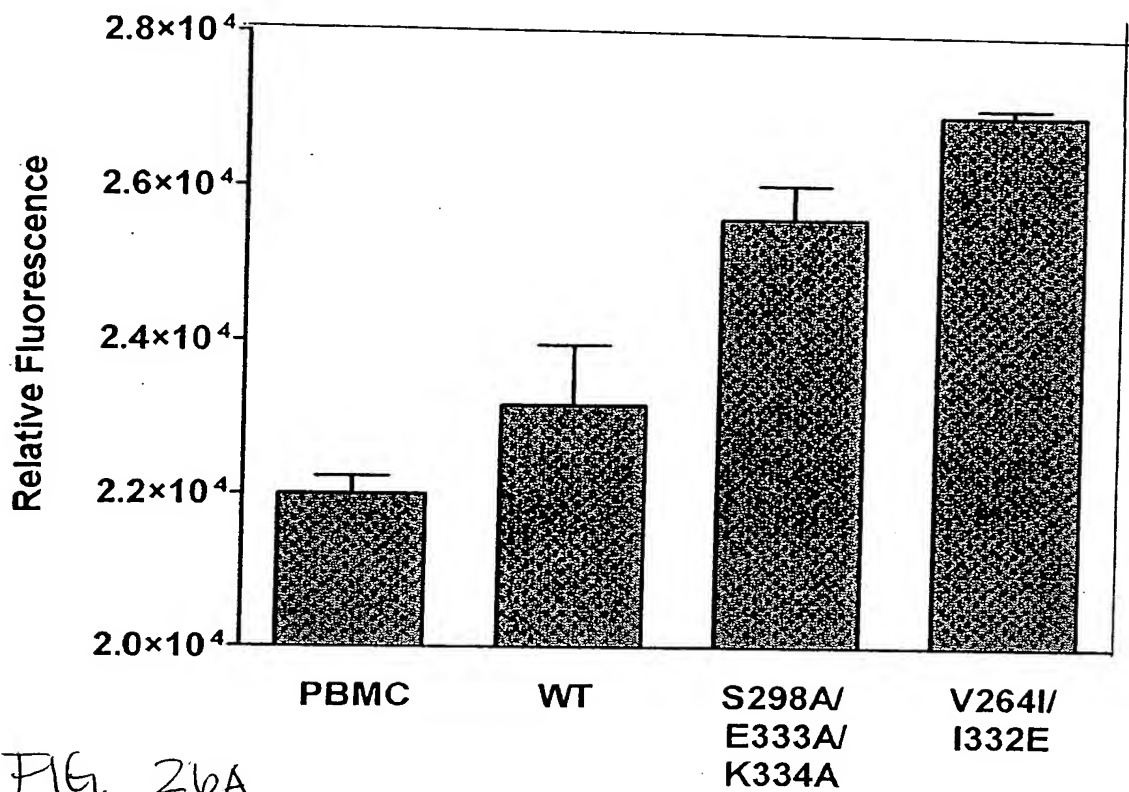


FIG. 26A

Figure 26A appears on bottom page of Replacement
page 22/32.

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Figure 26b

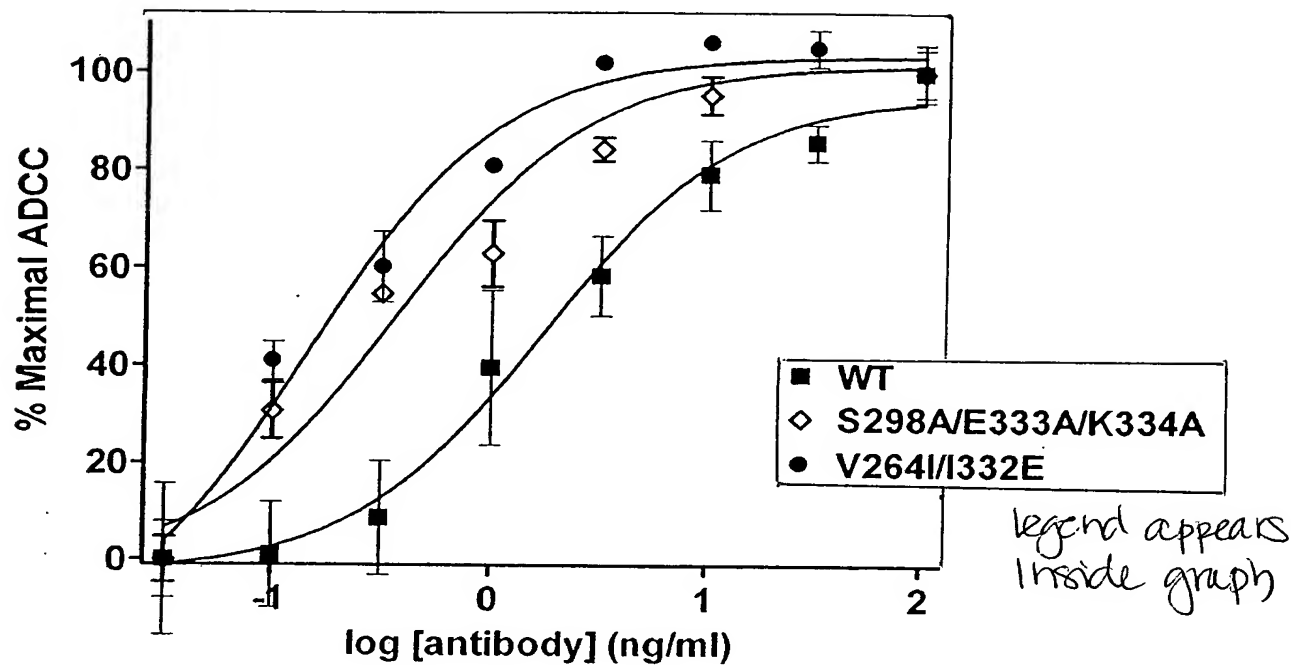
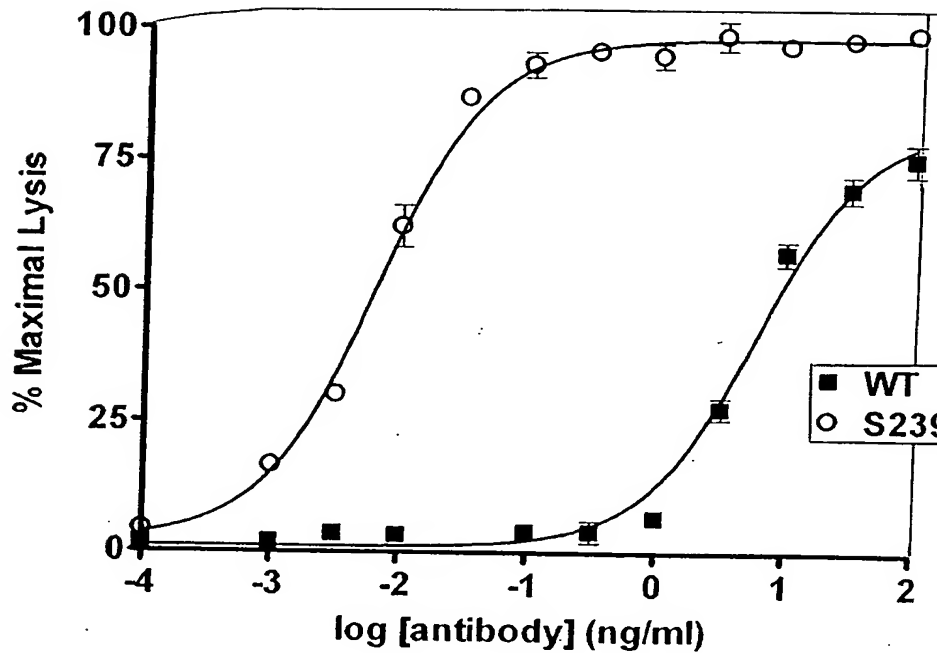


FIG. 26B

Figure 26c



■ WT
○ S239D/I332E/A330L

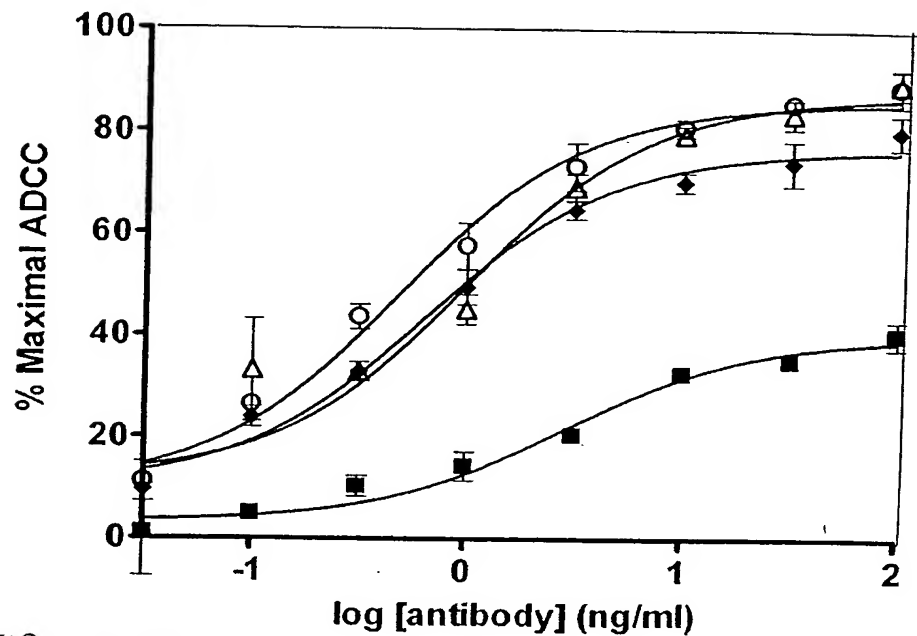
legend appears in
upper left hand corner
of graph

FIG. 26c

Figure 26c appears on bottom page of Replacement page 23/32.

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Figure 27a

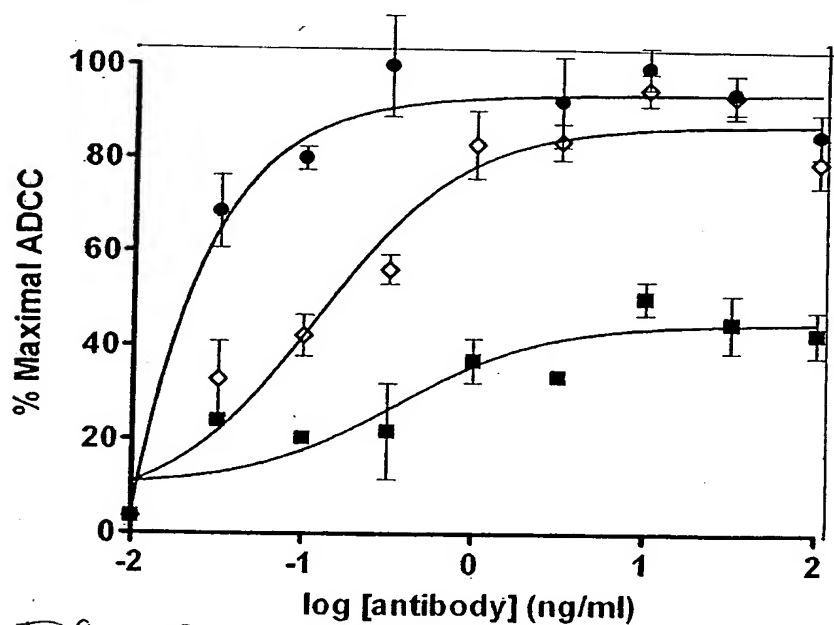


○ S239D/I332E
◆ S239N/I332E
△ I332E/V264I
■ WT

legend appears in
upper left of graph

FIG. 27A

Figure 27b



● S239D/I332E/A330L
◇ S239D/I332E/A330I
■ WT

legend appears
in lower right corner
of graph

FIG. 27B

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Figure 28

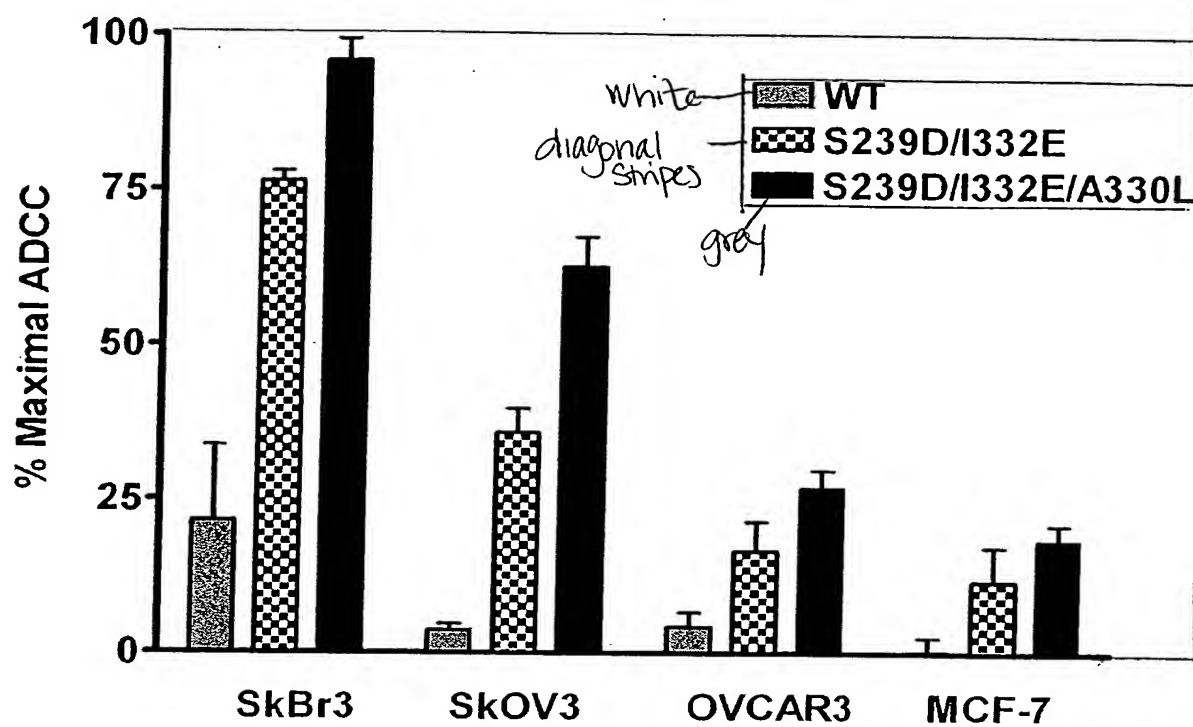


FIG. 28

Figure 29

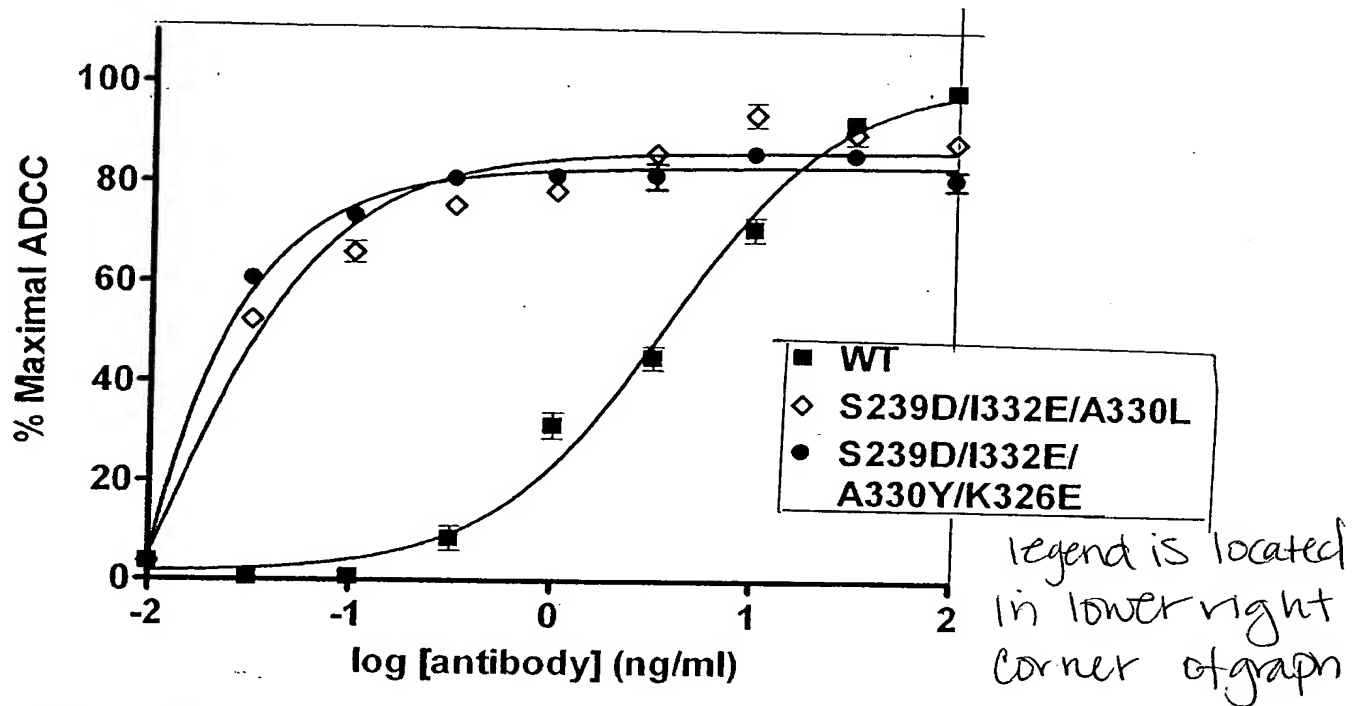


FIG. 29

Figure 29 appears on bottom page of Replacement page 25/32.

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Figure 30

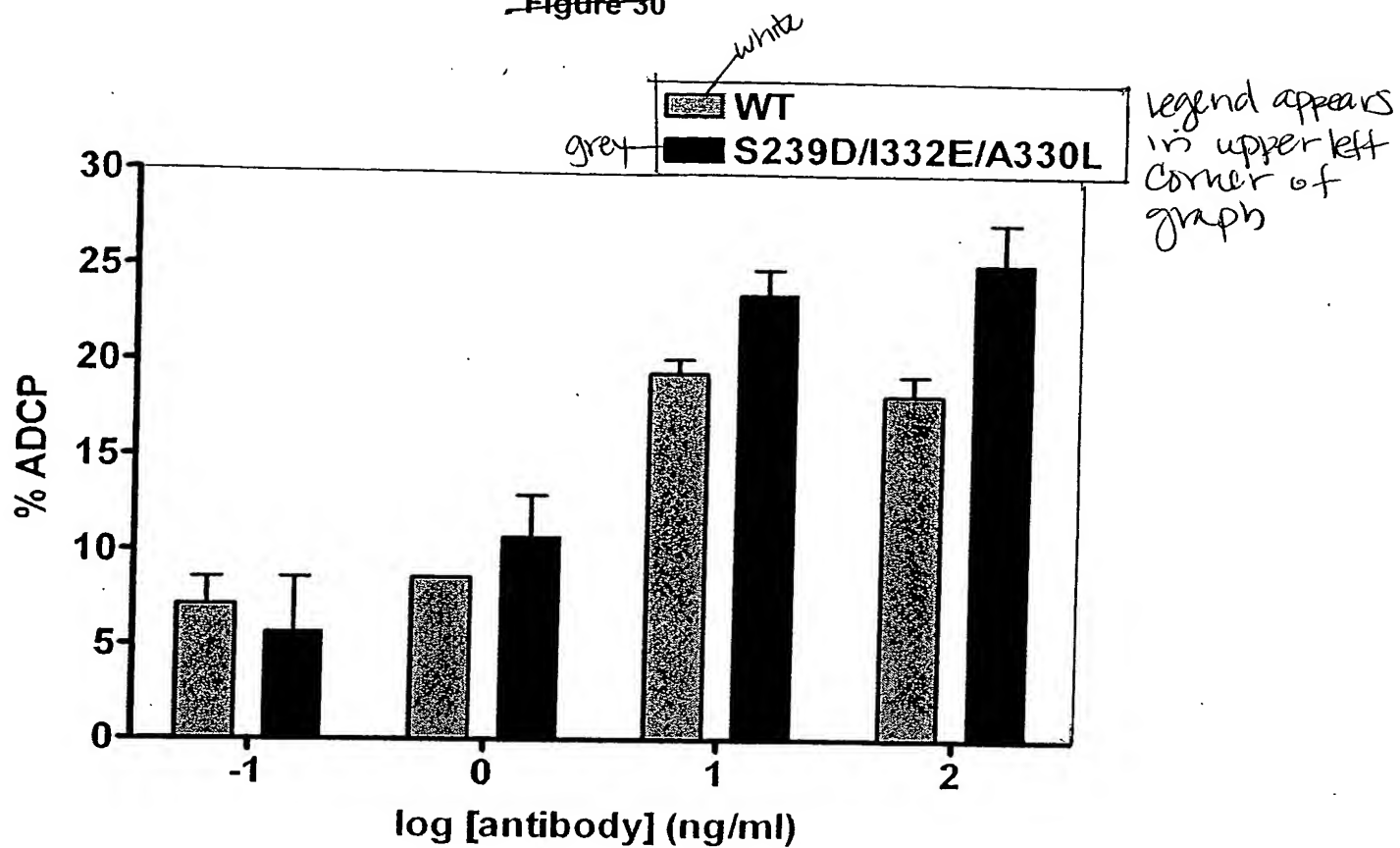


FIG. 30

Figure 31a

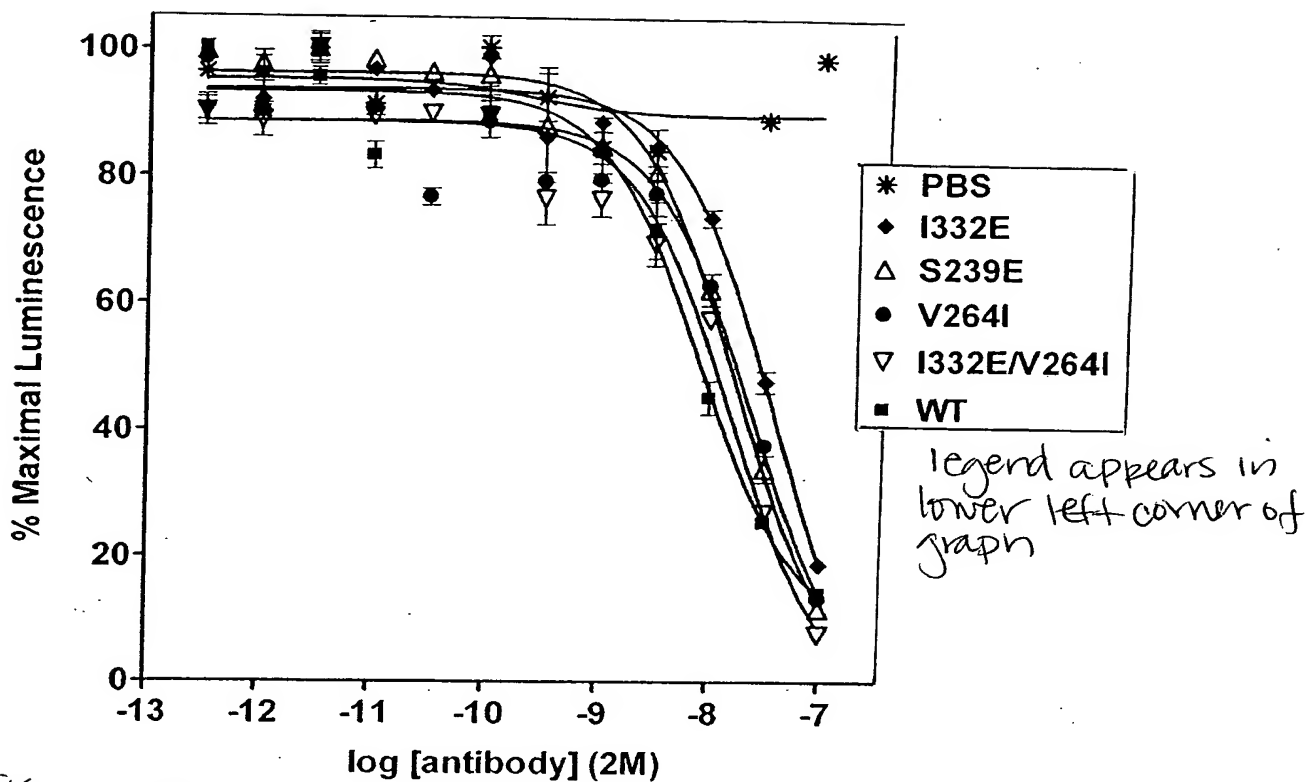
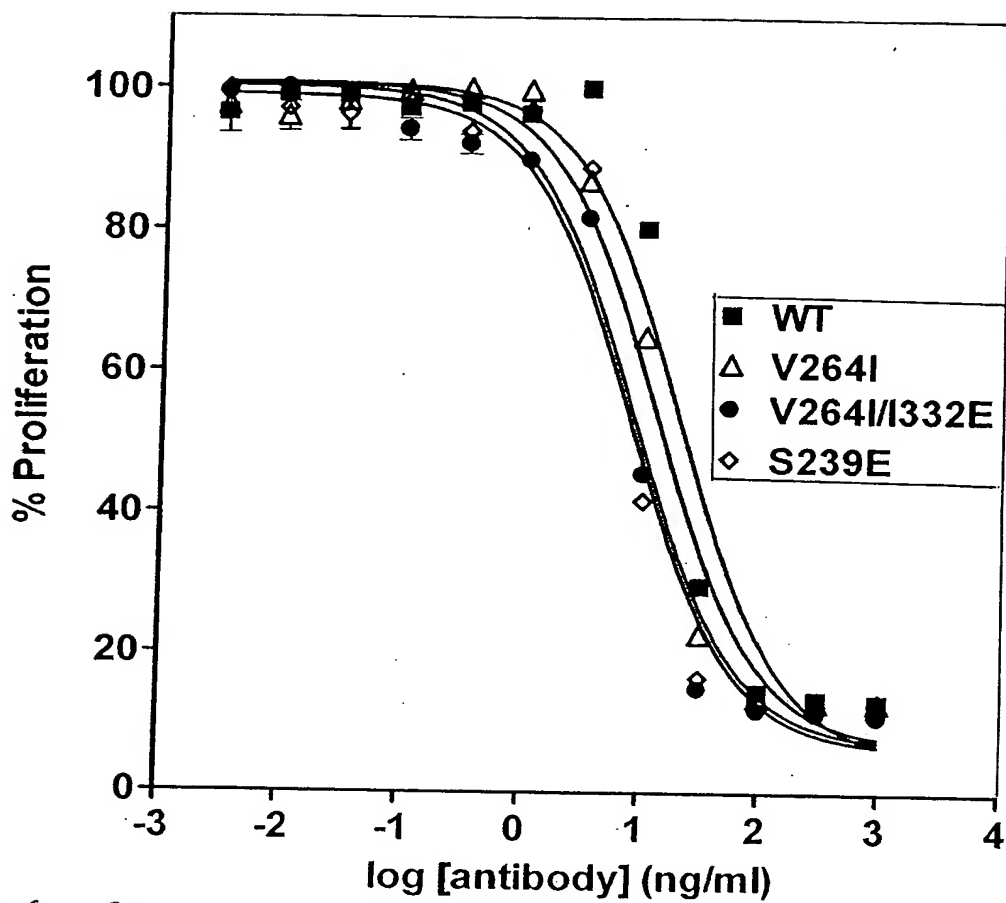


FIG. 31A

Figure 31A appears on bottom page of Replacement page 26/32

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Figure 31b



legend appears
on lower left
corner of graph

FIG_31B

~~Figure 31c~~

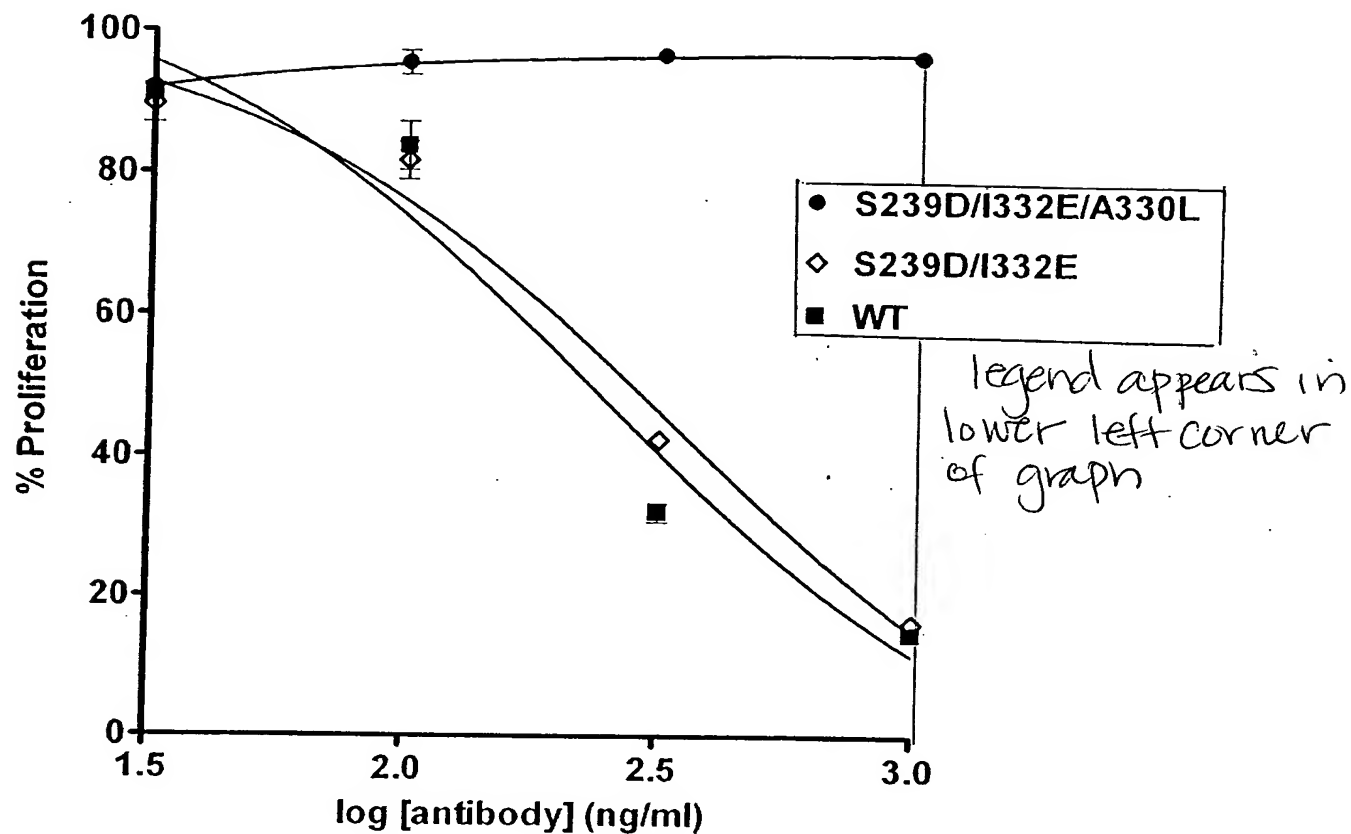


FIG. 31C

Figure 31C appears on bottom page of Replacement page 27/32.

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Figure 32

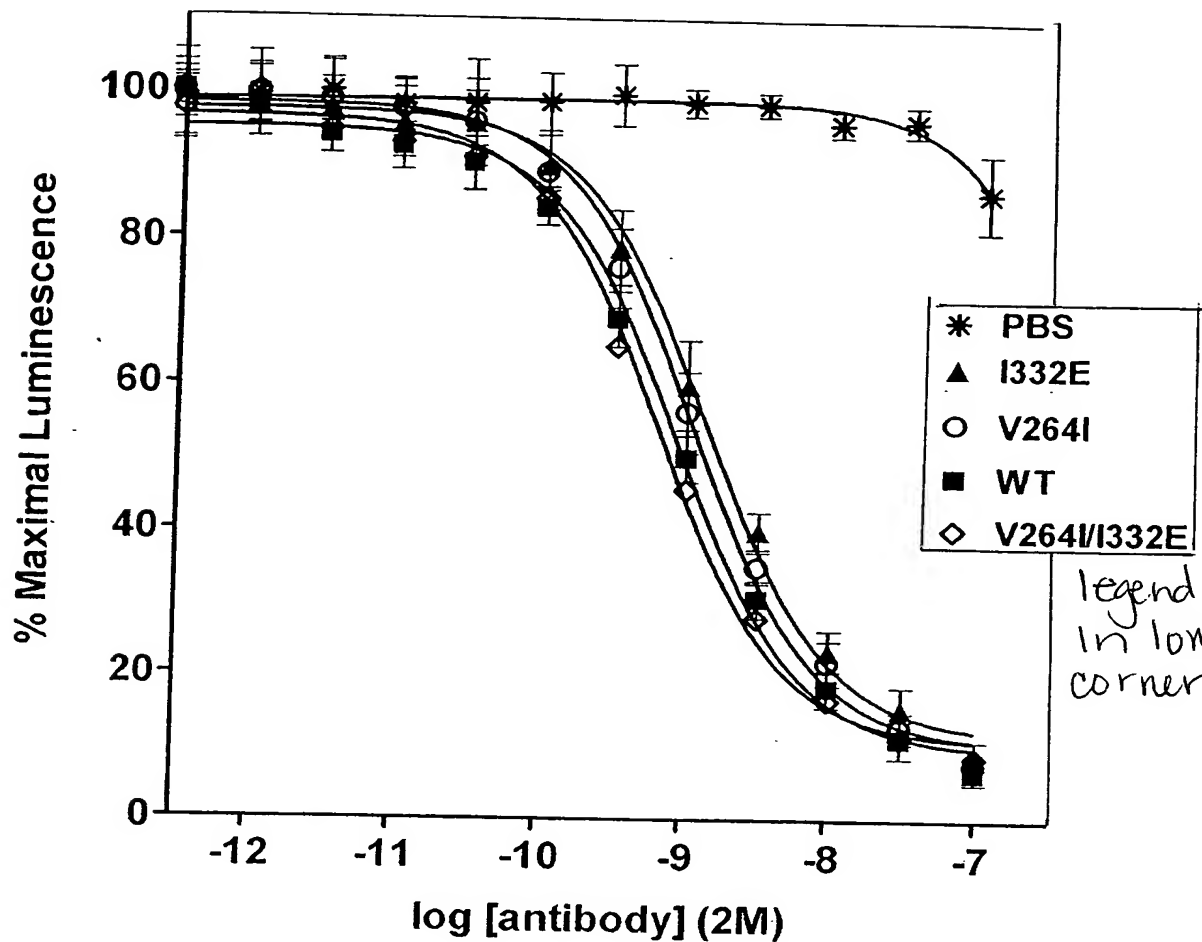


FIG. - 32

Figure 33

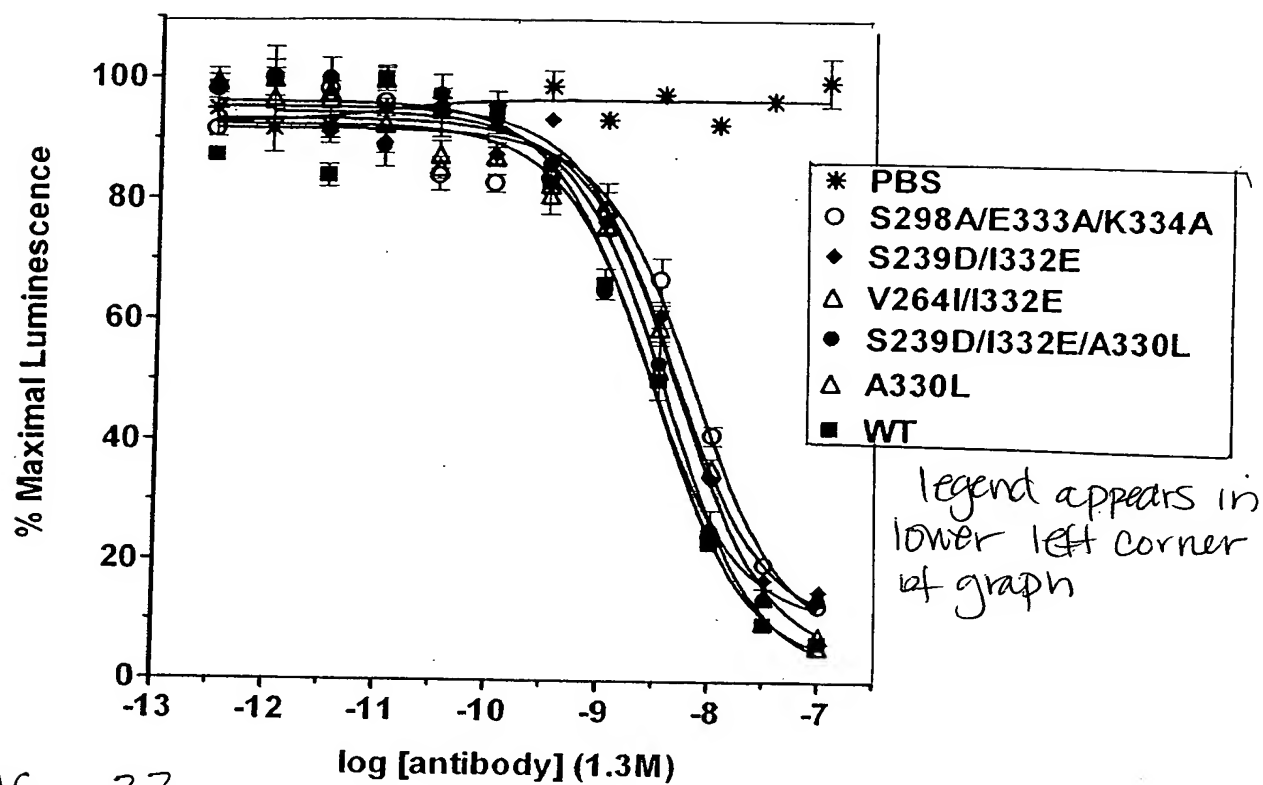


FIG. 33

Figure 33 appears in bottom page of Replacement page 28/32.

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Figure 34a

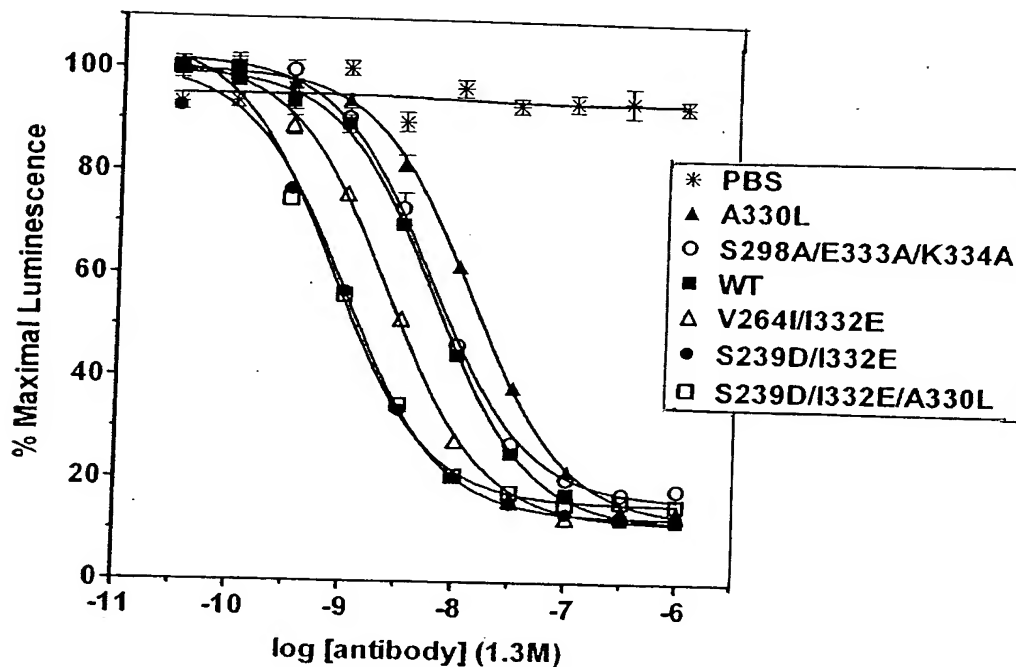
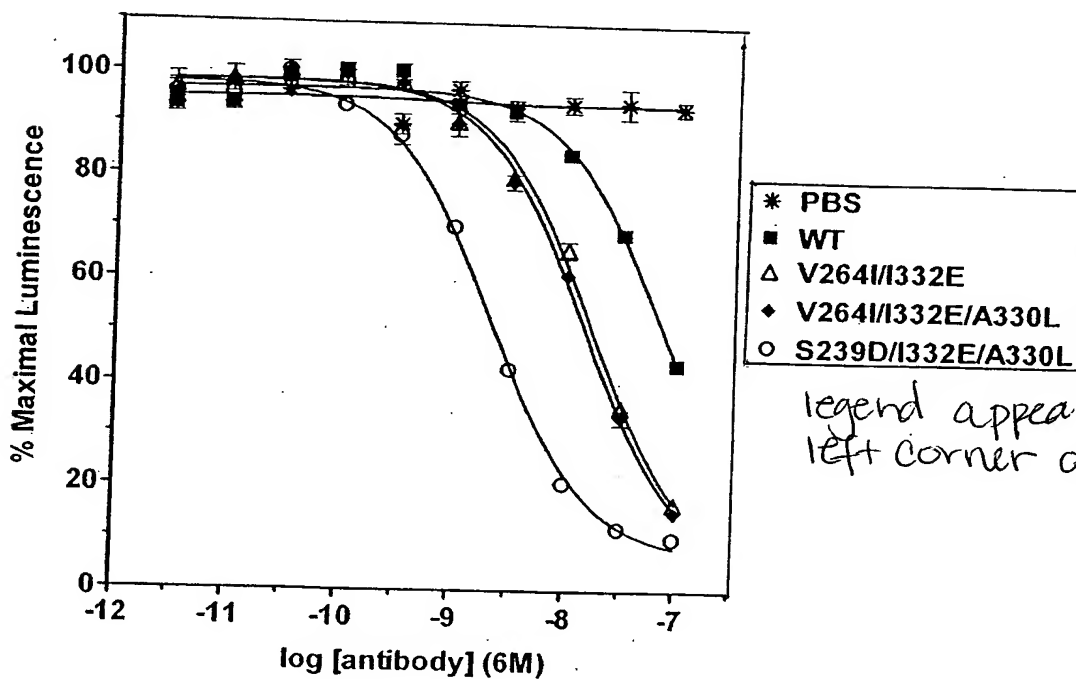


FIG. 34A

Figure 34b



legend appears in lower
left corner of graph

FIG. 34B

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Figure 35

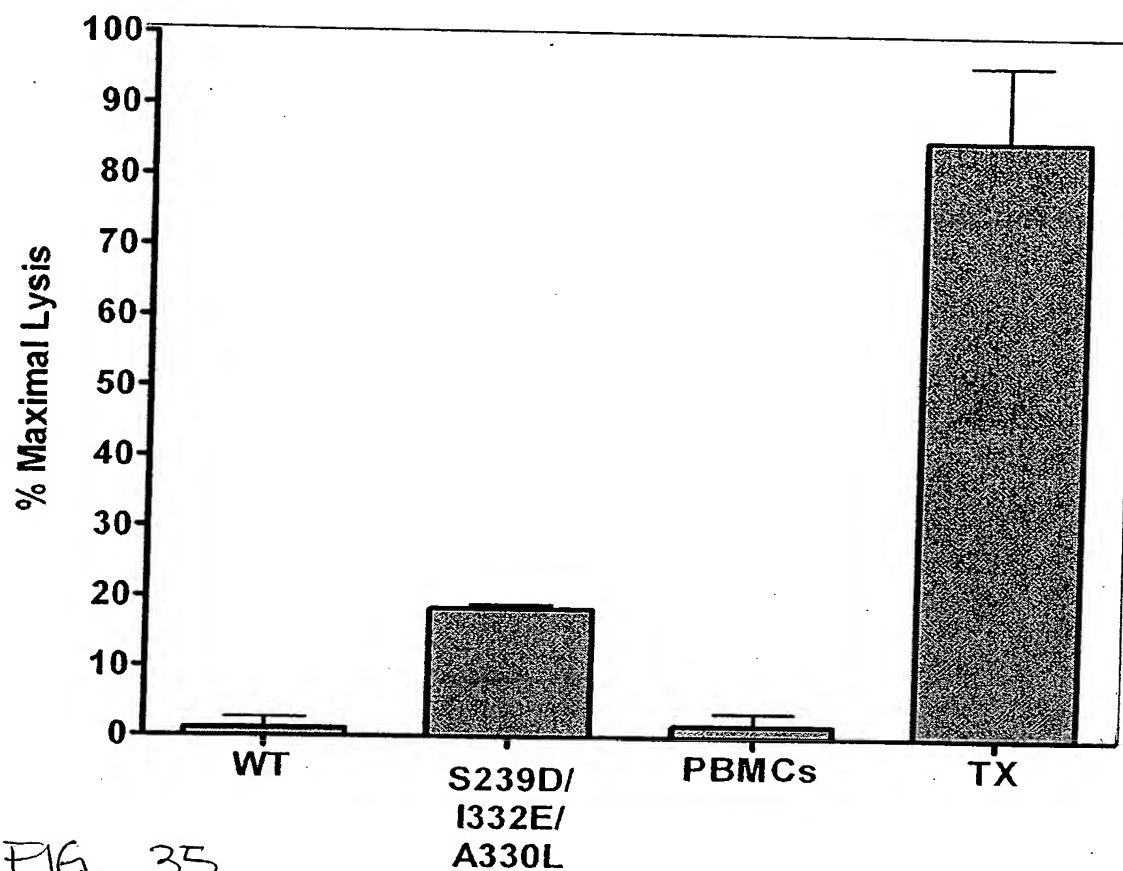


FIG. 35

~~Figure 36~~

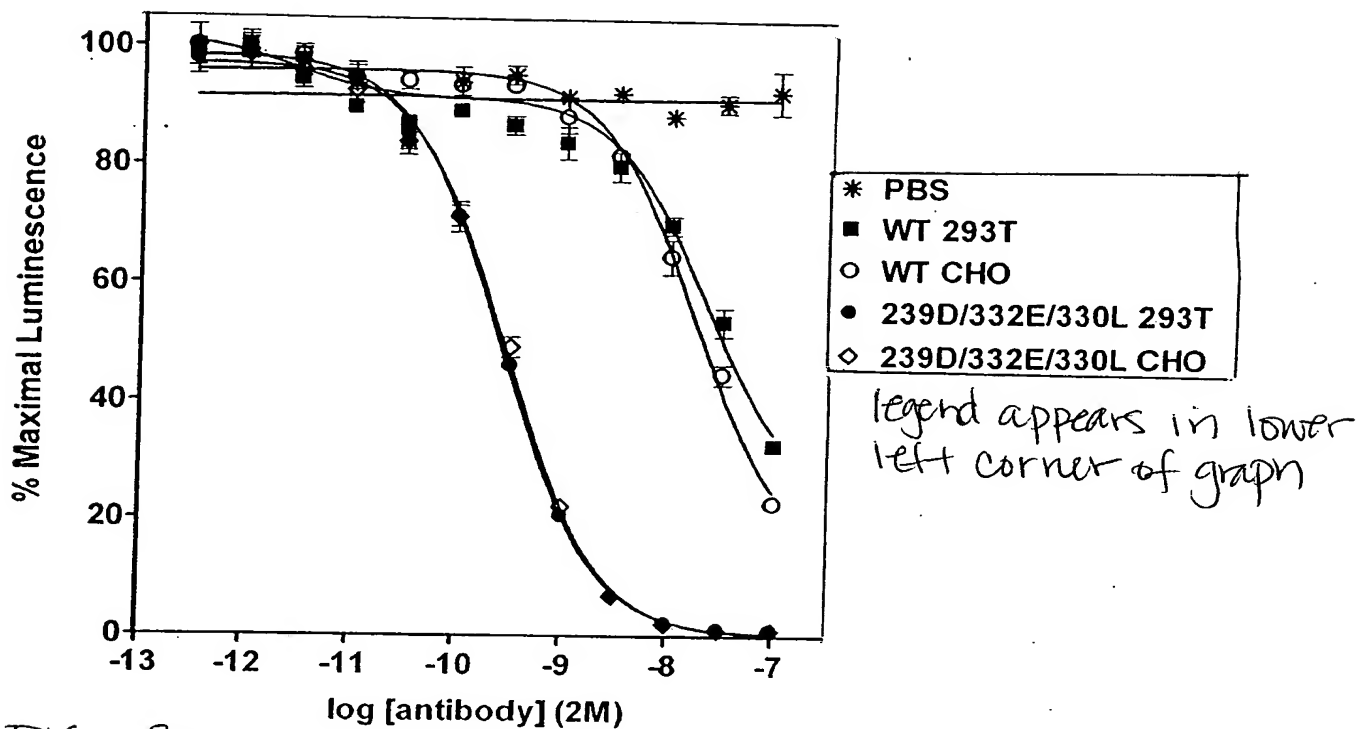


FIG. - 36

Figure 36 appears on bottom page of Replacement
page 30/32.

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Figure 37a

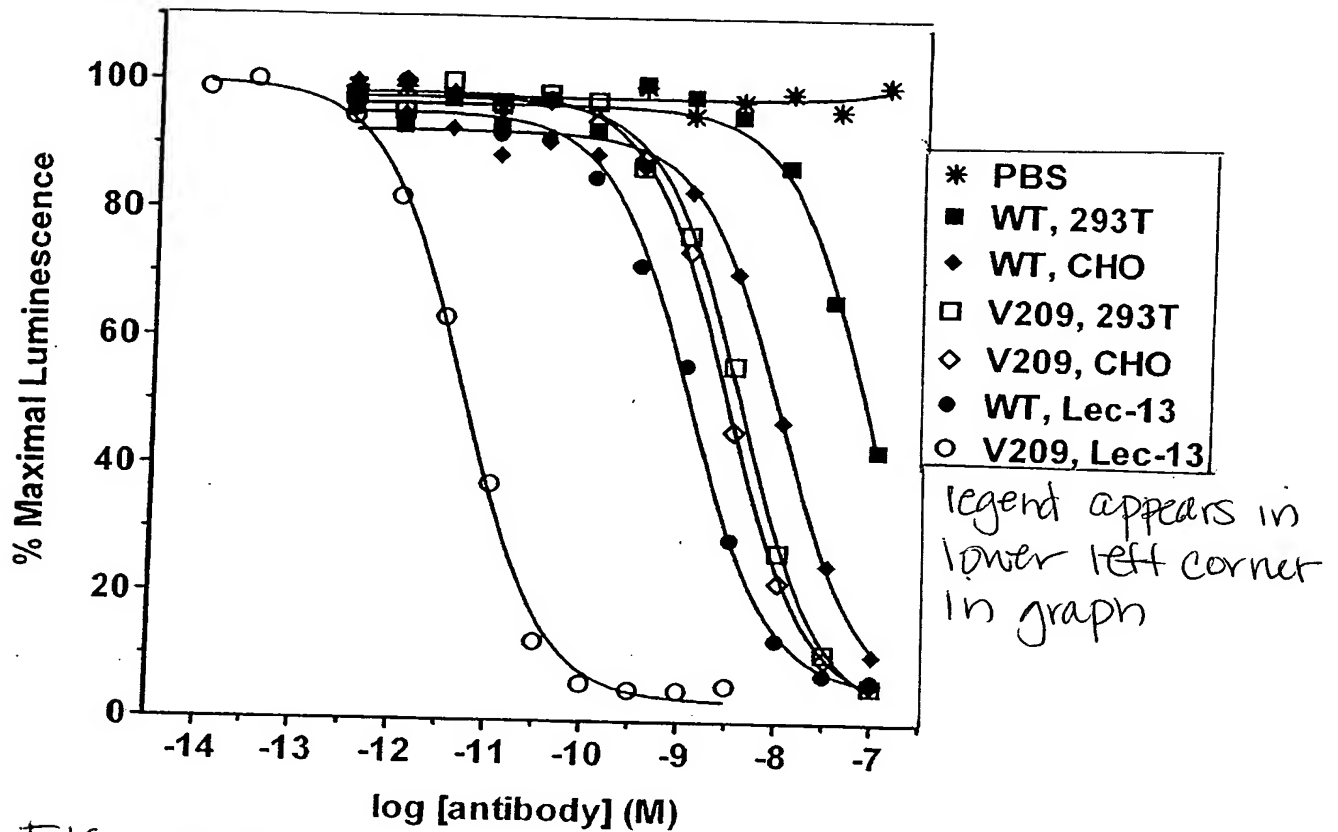
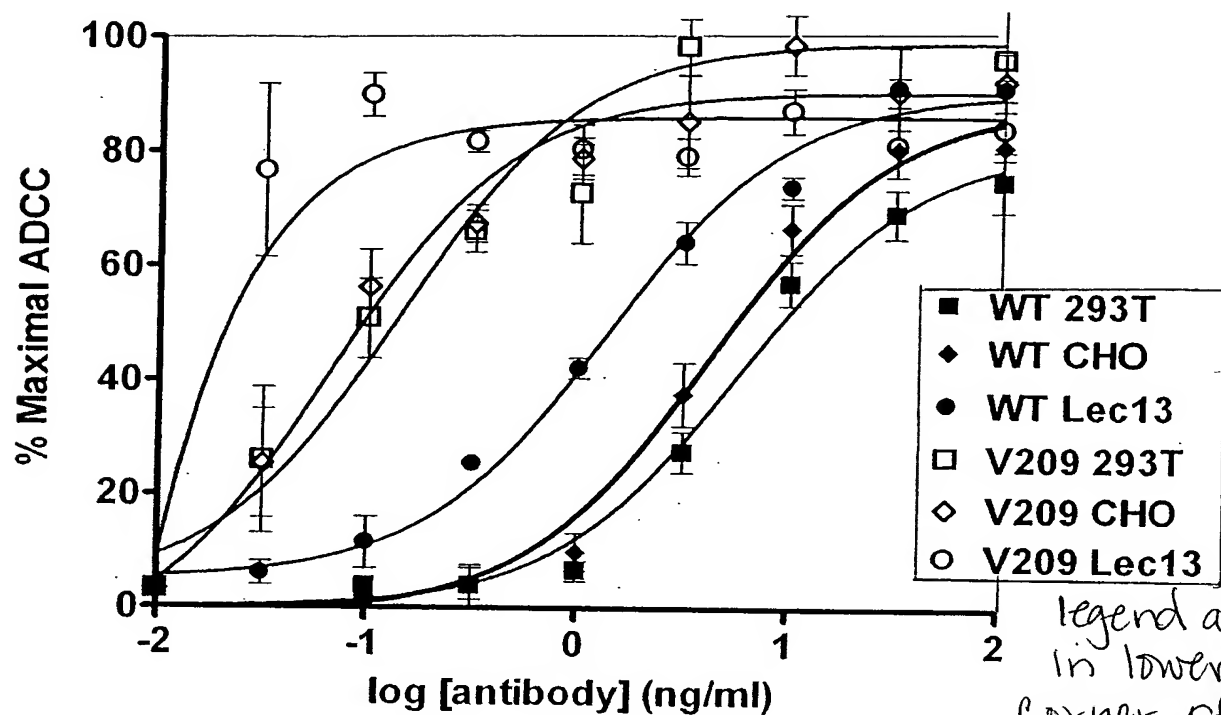


FIG. 37A

Figure 37b



legend appears
in lower right
corner of graph

FIG. 37B

Figure 37B appears on bottom page of Replacement page
31/32.

32/32

SEQ ID NO:3

Figure 38a

Anti-CD20 light chain

QIVLSQSPAILSASPGEKVTMTCRASSSVSYIHWFQQKPGSSPKPWYATSNLASGVPVRFSGSGSG
TSYSLTISRVEAEDAATYYCQQWTSNPPTFGGGTKLEIKRTVAAPSVFIFPPSDEQLKSGTASVCLL
NNFYPREAKVQWKVDNALQSGNSQESVTEQDSKSTYLSSTLTLSKADYEKHKVYACEVTHQGLS
SPVTKSFNRGEC

FIG. -38A

SEQ ID NO:4

Figure 38b

Anti-CD20 heavy chain

QVQLQQPGAELVKPGASVKMSCKASGYTFTSYNMHWVKQTPGRGLEWIGAIYPGNGDTSYNQKFK
GKATLTADKSSSTAYMQLSSLTSEDSAVYYCARSTYYGGDWYFNWVGAGTTVTVSAASTKGPSVFP
LAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLG
TQTYICNVNHKPSNTKVDKKAEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCV
VVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKA
LPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTP
PVLDSGGSFFLYSKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK

FIG. -38B

SEQ ID NO:5

Figure 37c

Anti-CD20 heavy chain comprising possible Fc variants

QVQLQQPGAELVKPGASVKMSCKASGYTFTSYNMHWVKQTPGRGLEWIGAIYPGNGDTSYNQKFK
GKATLTADKSSSTAYMQLSSLTSEDSAVYYCARSTYYGGDWYFNWVGAGTTVTVSAASTKGPSVFP
LAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGLYSLSSVTVPSSSLG
TQTYICNVNHKPSNTKVDKKAEPKSCDKTHTCPPCPAPELLGGPX₁X₂FLFPPKPKDTLMISRTPEVTC
VX₃DVSHEDPX₄VX₅FNWYVDGVEVHNAKTKPREEQYX₆Z₁TYRVVSVLTVLHQDWLNGKEYKCKVS
NZ₂ALPX₇PX₈EKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENN
YKTPPVLDSGGSFFLYSKLTVDKSRWQQGNVFCFSVMHEALHNHYTQKSLSLSPGK

Position	WT	Possible Substitutions
X ₁	S	D, E, N, Q, T
X ₂	V	I, M
X ₃	V	I, T, Y
X ₄	E	Y
X ₅	K	E
X ₆	N	D
X ₇	A	Y, L, I
X ₈	I	D, E, N, Q
Z ₁	S	A
Z ₂	K	E, T

FIG. -38C

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